# STANFORD UNIVERSITY

# REGISTER FOR 1930-1931

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STANFORD UNIVERSITY BULLETIN

FORTIETH

# ANNUAL REGISTER

1930-31

"The beneficence of the Creator toward man on earth, and the possibilities of humanity are one and the same."—LELAND STANFORD.

"A generous education is the birthright of every man and woman in America."

—DAVID STARR JORDAN.

STANFORD UNIVERSITY, CALIFORNIA
PUBLISHED BY THE UNIVERSITY

STANFORD
UNIVERSITY
PRESS

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# OFFICE DIRECTORY

[The rooms in the Inner Quadrangle are numbered consecutively, beginning at the left of the main entrance, ten numbers being allotted to each building. In the Outer Quadrangle forty numbers are allotted to each of the larger buildings and ten numbers to each one-story building, beginning with the Assembly Hall (number 120). The Administration Building is on the north façade of the Outer Quadrangle. The Engineering Buildings south of the Quadrangles begin with number 500. The Library is the central building in the second Quadrangle group. The Chemistry Building is on the west avenue between the Quadrangles and the Museum. Anatomy and Bacteriology are in the old Museum Building.]

Administration Building:

PRESIDENT, Room 165.
COMPTROLLER, Room 162.
REGISTRAR, Room 164.
DEAN OF MEN, Room 170.
DEAN OF WOMEN, Room 161.
ACADEMIC SECRETARY AND ALUMNI SECRETARY, Room 174.
APPOINTMENT SERVICE, Room 164.
DEAN OF SUMMER QUARTER, Room 173.
LOWER DIVISION COMMITTEE, Room 164.
COMMITTEE ON PUBLIC HEALTH, Room 164.
CITIZENSHIP, Room 172.

The room numbers of the various departmental offices are given on pages 10–11.

The University Postoffice is *Stanford University, California.*

The University Telephone Office is *Palo Alto* (office and departmental telephones "Palo Alto 6161" with local numbers added).

The University Railway Station and Telegraph and Express Offices are *Palo Alto, California.*

Requests for *University Bulletins,* blanks, and other printed matter, and inquiries regarding terms of admission, advanced standing, etc., should be addressed to THE REGISTRAR, *Stanford University, California.*

## 1930

### JULY

| S | M | T | W | T | F | S |
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### AUGUST

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## 1931

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### JULY

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### SEPTEMBER

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### OCTOBER

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### NOVEMBER

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### DECEMBER

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| 20 | 21 | 22 | 23 | 24 | 25 | 26 |
| 27 | 28 | 29 | 30 | 31 | .. | .. |

# UNIVERSITY CALENDAR

## 1930

### AUTUMN QUARTER

| | | | |
|---|---|---|---|
| Sept. | 15–19 | Monday–Friday | College Entrance Board Examinations. |
| Sept. | 27 | Saturday | College Aptitude Test. |
| Sept. | 30 | Tuesday | Lower Division Registration (new students). |
| Oct. | 1 | Wednesday | Registration for Autumn Quarter. |
| Oct. | 2 | Thursday | Instruction begins. |
| Oct. | 3 | Friday | Conferring of Degrees. |
| Oct. | 5 | Sunday | Matriculation Sunday. |
| Oct. | 22 } | | |
| Dec. | 19 } | | Make-up Examinations. |
| Nov. | 27–30 | Thursday–Sunday | Thanksgiving Recess. |
| Dec. | 16–19 | Tuesday–Friday | End-Quarter Examinations. |

## 1931

### WINTER QUARTER

| | | | |
|---|---|---|---|
| Jan. | 3 | Saturday | College Aptitude Test. |
| Jan. | 5 | Monday | Registration for Winter Quarter. |
| Jan. | 6 | Tuesday | Instruction begins. |
| Jan. | 9 | Friday | Conferring of Degrees. |
| Jan. | 26 } | | |
| Mar. | 20 } | | Make-up Examinations. |
| Feb. | 23 | Monday | Holiday for Washington's Birthday. |
| Mar. | 9 | Monday | Founders' Day. |
| Mar. | 17–20 | Tuesday–Friday | End-Quarter Examinations. |

### SPRING QUARTER

| | | | |
|---|---|---|---|
| Mar. | 28 | Saturday | College Aptitude Test. |
| Mar. | 30 | Monday | Registration for Spring Quarter. |
| Mar. | 31 | Tuesday | Instruction begins. |
| April | 3 | Friday | Conferring of Degrees. |
| April | 20 } | | |
| June | 10 } | | Make-up Examinations. |
| June | 6–10 | Saturday–Wednesday | End-Quarter Examinations. |
| June | 13 | Saturday | Senior Class Day. |
| June | 14 | Sunday | Baccalaureate Sunday. |
| June | 15 | Monday | Commencement. |

### SUMMER QUARTER

| | | | |
|---|---|---|---|
| June | 15–20 | Monday–Saturday | College Entrance Board Examinations. |
| June | 16 | Tuesday | College Aptitude Test. |
| June | 18 | Thursday | Registration for Summer Quarter. |
| June | 19 | Friday | Instruction begins. |
| July | 4 | Saturday | Independence Day (Holiday). |
| Aug. | 15 | Saturday | School of Education Classes close. |
| Aug. | 27–29 | Thursday–Saturday | End-Quarter Examinations. |

# ADMINISTRATIVE OFFICERS

## THE BOARD OF TRUSTEES

[The figures in parentheses indicate year of beginning of service]

Wallace McKinney Alexander (1924)...215 Market St., San Francisco
Frank Bartow Anderson (1912)
California and Sansome Sts., San Francisco
Harry Chandler (1923).....*Times* Office, Los Angeles
Leland Whitman Cutler (1920)...Financial Center Bldg., San Francisco
Frank Prentiss Deering (1916)...325 Standard Oil Bldg., San Francisco
Joseph Donohoe Grant (1891).....114 Sansome St., San Francisco
Thomas Tingey Craven Gregory (1919)...Balfour Bldg., San Francisco
Herbert Clark Hoover (1912).....Washington, D.C.
Timothy Hopkins (1885).....111 Sutter St., San Francisco
Ira Shell Lillick (1923).....900 Balfour Bldg., San Francisco
Christian Otto Gerberding Miller (1923)
433 California St., San Francisco
William Mayo Newhall (1912).....260 California St., San Francisco
John Thomas Nourse (1920).....2 State Bldg., San Francisco
Paul Shoup (1923).....Southern Pacific Bldg., San Francisco
Marcus Cauffman Sloss (1920).....Mills Bldg., San Francisco

### OFFICERS OF THE BOARD

President: William Mayo Newhall
Vice-Presidents: Marcus Cauffman Sloss, Joseph Donohoe Grant
Secretary-Treasurer: Ira Shell Lillick
Assistant Secretary and Assistant Treasurer: Frank Prentiss Deering

### STANDING COMMITTEES OF THE BOARD

Finance: Miller, Anderson, Cutler, Grant, Gregory, Hopkins, Lillick, Newhall, Shoup
University: Lillick, Alexander, Chandler, Cutler, Deering, Gregory, Hoover, Newhall, Nourse, Sloss
Rules: Nourse, Lillick, Sloss
Campus: Cutler, Hopkins, Nourse

## THE STANFORD NATIONAL BOARD

ELMER JEFFERSON BISSELL.....Glendissary Lane, Santa Barbara
BENJAMIN FRANKLIN BLEDSOE.....649 Roosevelt Bldg., Los Angeles
FLOYD CROMWELL BROWN.....235 Ward Parkway, Kansas City, Mo.
ROBERT WILLIS CAMPBELL.....208 S. La Salle St., Chicago, Ill.
NATHANIEL ALLEN CARLE....Public Service Production Co., Newark, N.J.
STRABO VIVIAN CLAGGETT.....1820 Washington St., Auburndale, Mass.
WILLIAM HENRY CROCKER...Crocker First National Bank, San Francisco
WALTER F. DILLINGHAM.....Honolulu, T.H.
MILTON ESBERG.....601 Third St., San Francisco
ROBERT N. FRICK.....Box 1708, Stanford University
HENRY ABRAHAM FRYE.....809 Crozer Bldg., Philadelphia, Pa.
WILLIAM HASTINGS HARRELSON.....2610 Filbert St., San Francisco
GEORGE HERBERT HERROLD.....2251 Langford Ave., St. Paul, Minn.
WILLIAM KOERNER.....Magna Copper Co., Superior, Ariz.
FREDERICK RODGERS LANAGAN.....570 Williams St., Denver, Colo.
ABRAHAM LEWIS.....2211 Kamehameha Ave., Honolulu, T.H.
KENNETH MACKINTOSH.....1701 Smith Bldg., Seattle, Wash.
CHARLES MCFERSON MANNON.....Ukiah
GEORGE THOMAS MARYE.....Financial Center Bldg., San Francisco
WILLIAM METCALF PARKIN.....5577 Hampton St., Pittsburgh, Pa.
FRANCIS PRICE.....Box 680, Santa Barbara
ROY VALENTINE REPPY.....1204 Edison Bldg., Los Angeles
HENRY MAURIS ROBINSON
First National Bank of Los Angeles, Los Angeles
CHARLES A. SHURTLEFF.....Menlo Park
HOMER ROBERTS SPENCE.....Hotel Alameda, Alameda
LESTER DOUGLAS SUMMERFIELD.....237 Clay St., Reno, Nev.
CLYDE ARTHUR SWIGART.....Standard Oil Co., Bakersfield
CHARLES COLLINS TEAGUE.....Santa Paula
WILLIAM HENRY THOMAS.....725 Knott St., Portland, Ore.
WILLIAM L. VALENTINE.....1020 Security Bldg., Los Angeles
ARTHUR BENJAMIN WEST.....199 Lafayette, Denver, Colo.

# EXECUTIVE OFFICERS

[Office and office hours in parentheses; MTWThF unless otherwise specified. "Adm." before office number indicates Administration Bldg.; "a," Anatomy; "b," Bacteriology; "c," Chemistry; "g," Encina Gymnasium; "p," Press; "pe," Physical Education; "r," Roble Gymnasium.]

President: Ray Lyman Wilbur. (Adm. 165.)
Acting President: Robert Eckles Swain. (Adm. 165, 10–12, 2–5.)
Comptroller: Almon Edward Roth. (Adm. 162, MWF 10–12, 2–4, S 10–12.)
Registrar: John Pearce Mitchell. (Adm. 164, 8–12, 1–4, S 8–12.)
Dean of Women: Mary Yost. (Adm. 161a, 10–12.)
Dean of Men: George Bliss Culver. (Adm. 170, 8:30–11:15, 1:30–4.)
Chaplain: David Charles Gardner. (Vestry, 9–12.)

Academic Secretary: John Ezra McDowell. (Adm. 174.)
Anatomy: Arthur William Meyer. (a2.)
Bacteriology and Experimental Pathology: Edwin William Schultz. (b1.)
Biological Sciences, School of: Ernest Gale Martin. (482.)
Botany: George James Peirce. (466.)
Business, Graduate School of: Willard Eugene Hotchkiss, Dean. (422.)
Chemistry: Robert Eckles Swain. (c10.)
Citizenship: Edgar Eugene Robinson, Director. (Adm. 172.)
Classical Literature: Augustus Taber Murray. (257.)
Economics: Walter Greenwood Beach.† (223.)
Education, School of: Ellwood Patterson Cubberley. (51.)
Engineering, Civil: John Charles Lounsbury Fish. (266A.)
Engineering, Electrical: Harris Joseph Ryan. (505.)
Engineering, Mechanical: Arthur Boquer Domonoske. (260.)
Engineering, Mining: Theodore Jesse Hoover. (530.)
Engineering, School of: Theodore Jesse Hoover, Dean. (530.)
English: William Dinsmore Briggs. (206.)
Food Research: Alonzo Englebert Taylor. (32.)
Geology: Eliot Blackwelder. (340.)
Germanic Languages: William Alpha Cooper. (116.)
Graduate Study: Carl Lucas Alsberg, Dean. (34.)
Graphic Art: Arthur Bridgman Clark. (314.)
History: Edgar Eugene Robinson. (Adm. 172.)
Hoover War Library: Ralph Haswell Lutz. (215.)
Hopkins Marine Station: Walter Kenrick Fisher.

† Acting.

Hygiene and Physical Education (Men): Thomas Andrew Storey. (pe15.)
Hygiene and Physical Education (Women): Bertha Stuart Dyment. (r3.)
Journalism: Everett Wallace Smith. (p1.)
Law, School of: Arthur Martin Cathcart, Dean.† (1.)
Letters, School of: Hardin Craig. (209A.)
Libraries, University: Nathan Van Patten, Director.
Mathematics: Hans Frederik Blichfeldt. (63.)
Medical Adviser of Men: Thomas Andrew Storey. (pe15.)
Medical Adviser of Women: Bertha Stuart Dyment. (r3.)
Medicine, Department of: Arthur Leonard Bloomfield. (San Francisco.)
Medicine, School of: William Ophüls, Dean. (San Francisco.)
Memorial Church: David Charles Gardner, Chaplain.
Military Science and Tactics: Donald Cameron Cubbison. (539.)
Museum: Pedro J. Lemos, Director.
Obstetrics and Gynecology: Alfred Baker Spalding. (San Francisco.)
Pathology: William Ophüls. (San Francisco.)
Pediatrics: Harold Kniest Faber. (San Francisco.)
Pharmacology: Paul John Hanzlik. (San Francisco.)
Philosophy: Henry Waldgrave Stuart. (94A.)
Physical Sciences, School of: David Locke Webster. (389.)
Physics: David Locke Webster. (389.)
Physiology: Ernest Gale Martin. (482.)
Political Science: Edwin Angell Cottrell. (24.)
Psychology: Lewis Madison Terman. (399.)
Public Health and Preventive Medicine: Ernest Charles Dickson. (San Francisco.)
Public Speaking: Lee Emerson Bassett. (203B.)
Romanic Languages: Oliver Martin Johnston. (246.)
Social Sciences, School of: Edwin Angell Cottrell.† (24.)
Summer Quarter: John Armstrong Sellards, Dean. (Adm. 173.)
Surgery: Emile Frederic Holman. (San Francisco.)
Zoölogy: John Otterbein Snyder. (443.)

† Acting.

# STANDING COMMITTEES OF ACADEMIC COUNCIL

[The first-named member in each committee is Chairman, unless otherwise indicated. The term of office of members of the Executive Committee begins immediately upon election (in May); of all other standing committees, September 1.]

## ADVISORY BOARD

Alsberg, Blackwelder, Cathcart, Fish, Kirkwood, Meyer, Murray, Swain (Chairman), §Wildman.

## ADMINISTRATIVE COMMITTEES

1. Student Affairs: Moser, W. H. Brown, Danforth, E. G. Martin, Moreno.
2. Athletics (Men): Storey, Mitchell, Owens, E. W. Smith, Thomas.
3. Public Exercises: Cottrell, W. D. Allen, Bassett, Brand, Guérard, McDowell, Peirce, Sellards, Seward.
4. Public Health: Storey, W. H. Brown, Culver, Dyment, Yost.
5. Scholarship: Vernier, Culver, E. G. Martin, Mitchell, Stone, Storey, Yost.
6. Vocational Guidance: Strong, J. G. Brown, Cowdery, Culver, B. M. Green, Hays, Mitchell, Proctor, Rathbun, L. B. Reynolds, Yost.
7. Lower Division: Mitchell, Barclay, Brand, B. O. Brown, Haley, Harriman, Huggins, Kennedy, Kindy, Miles, Robinson, Sears, Snyder, Thomas, Yost.
8. Research: Blackwelder, Barnett, Becking, Blichfeldt, Hoover, Hotchkiss, McBain, Meyer, Ophüls, Seward, G. M. Smith, A. E. Taylor, L. M. Terman, Webster, Wilbur.

## ACADEMIC COMMITTEES

1. Executive Committee: Wilbur, Alsberg, Blackwelder, Briggs, Cathcart, Cottrell, Fish, Foster, McDowell, Marx, Meyer, Mitchell, Peirce, Swain.
2. Admission and Advanced Standing: Mitchell, Foster, Lutz, Strong, Tickell, Yost.
3. Registration: Mitchell, W. H. Brown, Culver, Leighton, Thompson.
4. Graduation: Blackwelder, Craig, Dowrie, Haley, Mitchell.
5. Schedule and Examinations: Osborne, Mitchell, Niles, Stone, F. E. Terman.
6. Graduate Study: Alsberg, Briggs, Guérard, Kirkwood, McBain, Marx, Meyer, Peirce, Ryan, H. W. Stuart, §Wildman.
7. Library: Cottrell, Brand, Cooper, Murray, Peirce.
8. University Publications: W. H. Davis, Hoover, Jackson, McBain, Treat.
9. Independent Study Plan: Robinson, Blackwelder, Cottrell, Guérard, Kennedy, E. G. Martin, H. W. Stuart, L. M. Terman, Young.

§ Deceased, December 24, 1930.

# OFFICERS OF INSTRUCTION AND ADMINISTRATION

[Name; residence; postoffice; residence telephone in parentheses; title. The *capital* letter following residence address indicates location of street (P = Palo Alto, MP = Menlo Park, RC = Redwood City, SJ = San Jose, SF = San Francisco, etc.); where capital letter is omitted the residence in all cases is *Stanford University*. The *small* letter following the capital indicates the postoffice address; where small letter is omitted the postoffice in all cases is *Stanford University*. The numbers (or letters) in italics after the residence address are *Stanford University* postoffice box numbers (or box letters); the asterisk (*) following the address indicates that mail should be addressed to the School, Department, or Office concerned. The numbers 1, 2, 3, 4 in parentheses after name of instructor indicate quarters on duty, i.e., autumn, winter, spring, summer, respectively. Brackets indicate absence on leave for the year. The dagger (†) marks the names of men who are married.]

## EMERITUS LIST

ANDERSON, MELVILLE BEST — 1733 W. Twenty-third, Los Angeles-la
Professor of English Literature, Emeritus

A.M., Butler College, 1877; LL.D., Aberdeen, 1906; Dr., University of Padua, 1922; Litt.D., Mills, 1923. At Stanford since 1891, Emeritus since 1910.

ANGELL, FRANK — 1200 Bryant, P-p (PA 3883)
Professor of Psychology, Emeritus

B.S., Vermont, 1878; Ph.D., Leipzig, 1891; L.H.D., Vermont, 1892. At Stanford since 1892, Emeritus since 1922.

†BARKAN, ADOLPH — 490 Post, SF-sf
Professor of Structure and Diseases of Eye, Ear, and Larynx, Emeritus

M.D., University of Vienna, 1866; LL.D., University of Glasgow, 1901. At Stanford since 1909, Emeritus since 1911.

†BLAISDELL, FRANK ELLSWORTH — 207 Gough, SF-sf (Hemlock 4060)
Professor of Surgery, Emeritus

M.D., Cooper Medical College, 1889. At Stanford since 1910, Emeritus since 1927.

†BOEZINGER, BRUNO — Menlo Heights-*1311* (PA 8688)
Associate Professor of German, Emeritus

A.B., Fort Worth University, 1894, A.M., 1895; Ph.D., Stanford, 1910. At Stanford since 1906, Emeritus since 1926.

CAMPBELL, DOUGLAS HOUGHTON — 538 Mayfield-*943* (PA 4424)
Professor of Botany, Emeritus

Ph.M., Michigan, 1882, Ph.D., 1886. At Stanford since 1891, Emeritus since 1925.

CLARK, GEORGE THOMAS — 1729 Emerson, P-p (PA 21353)
Director of University Libraries, Emeritus

B.S., California, 1886. At Stanford since 1907, Emeritus since 1928.

†COOPER, CHARLES MINER — 2550 Buchanan, SF-sf (Fillmore 1821)
Clinical Professor of Medicine, Emeritus

M.B., Ch.B., Edinburgh, 1897. At Stanford since 1918, Emeritus since 1922.

§DREW, ELMER REGINALD
Associate Professor of Physics, Emeritus

B.S., California, 1888; Ph.D., Cornell, 1903. At Stanford 1905–28, Emeritus 1928–30.

§ Deceased, October 19, 1930.

†Durand, William Frederick 623 Cabrillo* (PA 21626)
Professor of Mechanical Engineering, Emeritus

Graduate, U.S. Naval Academy, 1880; Ph.D., Lafayette, 1888; LL.D., California, 1924. At Stanford since 1904, Emeritus since 1924.

†Elliott, Orrin Leslie 756 Santa Ynez (PA 4427)
Registrar, Emeritus

Ph.B., Cornell, 1885, Ph.D., 1890. At Stanford since 1891, Emeritus since 1925.

Elmore, Jefferson 552 Alvarado-*1059* (PA 4653)
Professor of Classical Literature, Emeritus

A.B., Stanford, 1895, A.M., 1895, Ph.D., 1901. At Stanford since 1898, Emeritus since 1928.

†Fairclough, Henry Rushton 1005 Bryant, P-p
Professor of Classical Literature, Emeritus

A.B., Toronto, 1883, A.M., 1886; Ph.D., Johns Hopkins, 1896; Litt.D., Toronto, 1922. At Stanford since 1893, Emeritus since 1927.

Franklin, Edward Curtis 662 Mirada (PA 8219)
Professor of Organic Chemistry, Emeritus

B.S., Kansas, 1888, M.S., 1890; Ph.D., Johns Hopkins, 1894; Sc.D., Northwestern, 1925, Western Reserve, 1926; LL.D., Wittenberg, 1927. At Stanford since 1903, Emeritus since 1929.

†Green, Rufus Lot 541 Salvatierra (PA 7190)
Professor of Mathematics, Emeritus

B.S., Indiana, 1885, A.M., 1889. At Stanford since 1893, Emeritus since 1927.

Griffin, James Owen 570 Alvarado (PA 4533)
Professor of German, Emeritus

Graduate, Pennsylvania State Normal School, 1873. At Stanford since 1891, Emeritus since 1917.

†Hoskins, Leander Miller 1240 Waverley, P-p (PA 21214)
Professor of Applied Mathematics, Emeritus

B.C.E., and B.S., Wisconsin, 1883, M.S., 1885, C.E., 1887. At Stanford since 1892, Emeritus since 1925.

†Jenkins, Oliver Peebles 533 Lasuen-*1515* (PA 6038)
Professor of Physiology and Histology, Emeritus

A.B., Moore's Hill College, 1869, A.M., 1872; M.S., Indiana, 1886; Ph.D., 1889; LL.D., Moore's Hill College, 1916. At Stanford since 1891, Emeritus since 1916.

†Jordan, David Starr Serra House (PA 4333)
Chancellor, Emeritus

M.S., Cornell, 1872; M.D., Indiana Medical College, 1875; Ph.D., Butler College, 1878; LL.D., Cornell, 1886, Johns Hopkins, 1902, Illinois College, 1903, Indiana, 1909, California, 1915, Western Reserve, 1915. President of the University, 1891–1913, Chancellor, 1913–16, Emeritus since 1916.

†McKee, Albert Brown Woodside, RC-RFD, rc (Redwood 1707F12)
Clinical Professor of Ophthalmology, Emeritus

Ph.B., University of the Pacific, 1883, Ph.M., 1886; M.D., Cooper Medical College, 1886. At Stanford since 1912, Emeritus since 1928.

Martin, Lillien Jane 821–822 Shreve Bldg., SF-sf (Sutter 3489)
Professor of Psychology, Emeritus

A.B., Vassar, 1880; M.L.A., and honorary Ph.D., Bonn, 1913. At Stanford since 1899, Emeritus since 1916.

†Marx, Charles David 357 Kingsley, P-*1091* (PA 7919)
Professor of Civil Engineering, Emeritus

B.C.E., Cornell, 1878; C.E., Karlsruhe, Polytechnicum, 1881; LL.D., California, 1918; Dr.Ing.h.c., Karlsruhe, 1925. At Stanford since 1891, Emeritus since 1923.

Mosher, Clelia Duel 764 Santa Ynez (PA 8613)
Professor of Personal Hygiene, Emeritus

A.B., Stanford, 1893, A.M., 1894; M.D., Johns Hopkins, 1900. At Stanford, 1893–96, and since 1910, Emeritus since 1929.

†Price, George Clinton 532 Alvarado (PA 4520)
Professor of Zoölogy, Emeritus

B.S., De Pauw, 1890; Ph.D., Stanford, 1897. At Stanford since 1892, Emeritus since 1925.

†Rendtorff, Karl Gustav Carmel-Box 1402, c
Professor of German, Emeritus

A.M., Stanford, 1894, Ph.D., 1896. At Stanford since 1894, Emeritus since 1929.

†Rigdon, Rufus Lee 1617 Broderick, SF-sf (Fillmore 2285)
Clinical Professor of Genito-Urinary Surgery, Emeritus, and Consultant in Urology to Lane Hospital

M.D., Cooper Medical College, 1887. At Stanford since 1912, Emeritus since 1925.

†Rixford, Emmet 1795 California, SF-sf (Graystone 2030)
Professor of Surgery, Emeritus, and Consultant in Surgery to Lane Hospital

B.S., California, 1887; M.D., Cooper Medical College, 1891. At Stanford since 1909, Emeritus since 1930.

†Rogers, Frederick John 794 Melville, P-p (PA 21662)
Professor of Physics, Emeritus

M.S., Cornell, 1891. At Stanford since 1900, Emeritus since 1929.

†Sanford, Fernando 450 Kingsley, P-p (PA 6418)
Professor of Physics, Emeritus

B.S., Carthage College, 1879, M.S., 1882, Sc.D., 1920. At Stanford since 1891, Emeritus since 1919.

§Smith, James Perrin
Professor of Paleontology, Emeritus

A.B., Wofford College, 1884; A.M., Vanderbilt, 1886; Ph.D., Göttingen, 1892; LL.D., Wofford College, 1916. At Stanford 1892–1930, Emeritus, 1930.

Stanley, Edward John 269 Hawthorne, P-p (PA 7989)
Assistant Professor of Mechanical Engineering, Emeritus

At Stanford since 1901, Emeritus since 1927.

†Stillman, Stanley Belvedere-b (B41)
Professor of Surgery, Emeritus, and Consultant in Surgery to Lane Hospital

M.D., Cooper Medical College, 1889. At Stanford since 1909, Emeritus since 1926.

Stoltenberg, Clara S. 525 Salvatierra-*1585* (PA 8418)
Professor of Anatomy, Emeritus

A.B., Stanford, 1896, A.M., 1897. At Stanford since 1896, Emeritus since 1930.

§ Deceased, January 1, 1931.

†Willis, Bailey 539 Lasuen-*1365* (PA 5427)
Professor of Geology, Emeritus

E.M., Columbia School of Mines, 1878, C.E., 1879; Hon. Ph.D., University of Berlin, 1910. At Stanford since 1915, Emeritus since 1922.

†Wing, Charles Benjamin 345 Lincoln, P-p (PA 5463)
Professor of Structural Engineering, Emeritus

C.E., Cornell, 1886. At Stanford since 1892, Emeritus since 1929.

## ACTIVE LIST

†Abrams, LeRoy (123) 653 Cabrillo* (PA 5526)
Professor of Botany, and Director of Dudley Herbarium

A.B., Stanford, 1899, A.M., 1902; Ph.D., Columbia, 1910. Acting Professor of Botany, University of Idaho, 1899–1900; Assistant in Botany, Stanford University, 1900–1902, Instructor, 1902–4; Fellow in Botany, Columbia University, 1904–5; Assistant Curator, Division of Plants, United States National Museum, 1905–6; Lecturer in Botany, University of California, First Semester, 1915-16. At Stanford 1900–1904, and since 1906.

§Adams, Ephraim Douglass
Professor of History

A.B., Michigan, 1887, Ph.D., 1890; LL.D., Grinnell, 1917; Litt.D., Tufts, 1918. Principal of High School, McGregor (Ia.), 1887; Principal of High School, Saginaw (Mich.), 1889; Special Agent in Charge of Street Railways, Eleventh Census, Washington (D.C.), 1890; Assistant Professor and afterward Professor of European History, University of Kansas, 1891–1902. At Stanford 1902–30.

†Adams, Romanzo Colfax (4) 520 Cowper, P*
Acting Professor of Sociology (Economics)

Ph.B., Michigan, 1897, Ph.M., 1898; Ph.D., Chicago, 1904. Fellow in Sociology, University of Chicago, 1901–2; Professor of Economics and Sociology, Western College (Toledo, Iowa), 1898–1900; Professor of Education and Sociology, University of Nevada, 1902–11, Professor of Economics and Sociology, 1911–20; Professor of Economics and Sociology, University of Hawaii, 1920–27, Professor of Sociology since 1927.

†Addis, Thomas (1234) 201 San Carlos, Sausalito-s (Sausalito 350)
Professor of Medicine

M.B., Ch.B., Edinburgh, 1905, M.D., and M.R.C.P., 1908. Clinical Assistant, Medical Out-Patient Department, Royal Infirmary of Edinburgh, 1908, 1911; Medical Registrar, Leith Hospital, 1911; Carnegie Research Scholar and Fellow, 1908–11. At Stanford since 1911.

Adelsbach, Cleo Garland (123) 721 Columbia, P-*62*
Instructor in Mathematics

A.B., Stanford, 1928, A.M., 1931. At Stanford since 1929.

†Alderson, Harry Everett (1234) 2649 Green, SF-sí (Fillmore 4548)
Clinical Professor of Medicine (Dermatology)

M.D., California, 1900. Graduate Study, Vanderbilt Clinic, New York, 1906, Johns Hopkins, 1907, Berlin, Paris, and London, 1912; Assistant in Skin Diseases, Medical Department, University of California, 1906–12; Professor of Art Anatomy, California School of Design, 1906–12; Chief of Dermatological Clinic, San Francisco Fruit and Flower Mission; Dermatologist, U.S. Veterans Bureau. At Stanford since 1912.

[†Allen, Clifford Gilmore 637 Alvarado (PA 3347)
Professor of Romanic Languages]

A.B., Boston, 1900; A.M., Stanford, 1903; Docteur de l'Université de Paris, 1916. Student, University of Paris, 1903–4; Fellow of Boston University and Student of Universities of Paris and Madrid, 1904–5. At Stanford since 1901.

§ Deceased, September 1, 1930.

†Allen, Hollis Partridge (4) 214 Stanford Union* (PA 3121)
Acting Assistant Professor of Education

A.B., Pomona, 1918; Graduate, Santa Barbara State Teachers College, 1920; A.M., Stanford, 1925. Supervisor of Instruction in Aerial Armament, Second Lieutenant, U.S. Army Air Service, 1917–19; Instructor, Pomona High School, 1920–22; Principal, High and Elementary Schools, Big Pine, 1922–24; Assistant Superintendent, Director of Child Welfare and Research, San Bernardino City Schools, 1925–29, and part time since 1929; Instructor in Education, Pomona College, Summer Sessions since 1927; Assistant Professor of Education, Claremont Colleges, since 1929.

†Allen, Warren D. (1234) 675 Alvarado (PA 4924)
Organist, and Lecturer in Music

Associate, American Guild of Organists; Dean of Conservatory of Music, College of the Pacific, 1913–19. At Stanford since 1918.

†Almack, John Conrad (1234) 683 Alvarado (PA 3510)
Professor of Education

A.B., Oregon, 1918, A.M., 1920; Ph.D., Stanford, 1923. Principal and Superintendent of Schools, Rockford (Wash.), 1905–15; Editor, Colfax (Wash.), 1915–16; Superintendent of Schools, Coquille (Ore.), 1916–17; Assistant in Education, University of Oregon, 1917–18, Professor of Education and Director of Extension Education, 1918–21; Teaching Fellow, Stanford University, 1921 22. At Stanford since 1922.

Almond, Nina (1234) 532 Lasuen-*1077* (PA 6624)
Librarian, Hoover War Library

A.B., Indiana University, 1913. Certificate, Indiana Library School; Head Cataloguer, Indiana University Library, 1914–16. At Stanford since 1916.

†Alsberg, Carl Lucas (1234) 678 Mirada* (PA 3855)
Director, Food Research Institute, and Dean of Graduate Study

A.B., Columbia, 1896, A.M., 1900, M.D. (College of Physicians and Surgeons), 1900. Student, Universities of Strassburg and Berlin, 1900–1903; Assistant in Physiological Chemistry, Harvard University, 1902–5, Instructor in Biological Chemistry, 1905–8; Chemical Biologist, Bureau of Plant Industry, United States Department of Agriculture, 1908–12; Chief, Bureau of Chemistry, 1912–21. At Stanford since 1921.

†Anderson, Frederick (1234) Cedro Cottage-*2525* (PA 3526)
Associate Professor of Romanic Languages

A.B., Stanford, 1911; A.M., Harvard, 1912; Ph.D., Yale, 1915. Instructor in French and Spanish, Reed College, 1912–13, Sheffield Scientific School, 1913–14, Yale University, 1914–18; Fellow in Yale University, 1914–15. At Stanford since 1920.

†Anderson, Henry Stow (1234) 460 Yale, P-Bx 83, Station A, p (PA 6961)
Assistant Professor of Economics, and Assistant Director of Citizenship

A.B., Stanford, 1922, A.M., 1923, Ph.D., 1925. At Stanford since 1923.

†Anderson, Hobson Dewey (1234) Cupertino-Box 186, Route A, c
Assistant in Educational Research

A.B., Stanford, 1929, A.M., 1930. At Stanford since 1930.

†Anderson, Oscar Albin (4) 2738 Cowper, P-*1702* (PA 6386)
Acting Instructor in Education

A.B., Cornell College, 1921; A.M., Stanford, 1929. Athletic Director, Iowa State Soldiers Orphans Home, 1920–22; Teacher, Globe (Ariz.) High School, 1922–24; Executive of Apache District, Boy Scouts of America, 1924; Principal, Superior (Ariz.) High School, 1924–25; Principal, Mexia (Texas) High School, 1926–28; Assistant in Instruction, Education, Stanford, Summer Quarter, 1930; Cubberley Fellow in School Administration, Stanford, 1929–30; Industrial Economist, Department of Public Works, State of California, 1930; Instructor in Industrial Management, School of Business Administration, San Francisco College, 1930–31

†Anderson, Virgil Antris (1234) 1532 California, P* (PA 5664)
Instructor in English (Public Speaking)

A.B., Willamette, 1923; A.M., Stanford, 1931. Instructor in English and Public Speaking, The Dalles (Ore.) High School, 1923–29; Assistant in English (Public Speaking), Stanford, 1929–30. At Stanford since 1929.

†Applegate, Elmer Ivan (1234) 329 Lytton, P-p
Acting Curator, Dudley Herbarium

†Argo, Arnold Clarence (4) 20 Hudson, Redwood City-rc (RC 91)
Acting Assistant Professor of Education

B.S., University of Washington, 1912; A.M., Stanford, 1921. Instructor in high schools, Oregon and Washington, 1912–15; Principal, Clarkston (Wash.) High School, 1915–16; Principal, Grade School, Spokane (Wash.), 1916–18; Superintendent of Schools, Pasco (Wash.), 1918–19; Principal, High School, Redwood City, since 1921; Instructor, University of Oregon, Summer Session, 1928; Acting Assistant Professor of Education, Stanford, Summer Quarters, 1929, 1930.

†Ashley, Rea Ernest (123) 16 Fifth Ave., SF-sf (Bayview 5905)
Clinical Instructor in Surgery (Otology, Rhinology, Laryngology)

B.S., University of Illinois, 1917, M.D., 1919. Assistant, Department of Bacteriology and Pathology, University of Illinois, 1917–19; Assistant Resident Physician, Stanford University Hospital, 1919–20, Resident, Ear, Nose, and Throat, 1920–22; Postgraduate Study, Vienna, 1928. At Stanford since 1921.

†Bacher, John Adolph (1234) 157 Twenty-fifth Ave., SF-sf
Associate Clinical Professor of Surgery [(Evergreen 4684)
(Otology, Rhinology, Laryngology)

A.B., Stanford, 1899; M.D., Harvard, 1911. At Stanford since 1917.

†Bachrodt, Walter Lewis (4) 590 S. Fifteenth, San Jose-sj
Acting Associate Professor of Education [(Ballard 3157R)

A.B., Stanford, 1920, A.M., 1921. Superintendent of City Schools, San Jose, since 1921; Instructor, San Jose State Teachers College, Summer Sessions, 1922, 1924–26, 1928, 1929; Acting Instructor in Education, Stanford, Summer Quarter, 1924, Acting Assistant Professor, Summer Quarter, 1928, Acting Associate Professor, Summer Quarters, 1929, 1930.

Bailey, Margery (1234) 513 Salvatierra* (PA 8953)
Assistant Professor of English

A.B., Stanford, 1914, A.M., 1916; Ph.D., Yale, 1922. Fellow in English, Yale University, 1921–22. At Stanford since 1914.

†Bailey, Thomas Andrew (123) 390 Margarita, P (PA 3358)
Acting Assistant Professor of History

A.B., Stanford, 1924, A.M., 1925, Ph.D., 1927. Teaching Fellow in History, University of California, 1925–26; Acting Instructor in Citizenship, Stanford, 1926–27; Instructor in History and Political Science, University of Hawaii, 1927–28, Assistant Professor since 1928.

Bane, Suda Lorena (1234) 332 Forest, P*
Assistant Curator, American Relief Administration Archive, Hoover War Library

Assistant, Public Library, Washington, D.C., 1908–17; Assistant Librarian, U.S. Food Administration, 1917–19; Librarian, American Relief Administration, 1919–28. At Stanford since 1924.

Banks, Harvey Oren (123) 7 Stanford Union-*1104* (PA 3121)
Acting Instructor in Civil Engineering

B.S., C.E., Syracuse University, 1930.

Barbour, Dana Mills (123) 209 Stanford Union-*1105* (PA 3121)
Instructor in Citizenship

A.B., University of Washington, 1929, A.M., 1930. Teaching Fellow in Political Science, University of Washington, 1929–30. At Stanford since 1930.

BARCLAY, THOMAS S. (123) Stanford Union-*3004* (PA 3121)
Associate Professor of Political Science

A.B., Missouri, 1915, A.M., 1916; Ph.D., Columbia, 1924. Gregory Scholar, University of Missouri, 1915–16; Fellow, University of Chicago, 1916–17; United States Department of State, American Peace Commission, 1919–20; University Scholar in Public Law, Columbia University, 1920–22; Assistant Professor of Political Science, University of Missouri, 1922–26, Associate Professor, 1926–27; Acting Professor, North Carolina, Summer Session, 1921; Missouri, Summer Session, 1930. At Stanford since 1927.

†BARKAN, HANS (1234) 3653 Jackson, SF-sf (Skyline 1456)
Clinical Professor of Surgery (Ophthalmology)

A.B., Stanford, 1905; M.D., Harvard Medical School, 1910. Assistant in Pathology, Harvard Medical School, 1910–11, Instructor, 1911–12; Pathologist to the Long Island Hospital and Boston City Almshouse, 1911–12; Voluntary Assistant, Second Eye Clinic, Vienna, 1912–14; Lieutenant, U.S.N.R.F., July to December, 1917; Captain, M.R.C., U.S.A., November 1918, to June 1919. At Stanford since 1914.

†BARKAN, OTTO (123) 3435 Pacific, SF-sf (Fillmore 3353)
Assistant Clinical Professor of Surgery (Ophthalmology)

B.A., Trinity College, Oxford, 1909; M.D., Munich, 1914; M.R.C.S., London, 1915. House Physician, St. Mary's Hospital, London, 1914–15; Eye Clinics, Vienna and Munich, 1915–19; Eye Clinic, Vienna, 1920; Consulting Ophthalmologist, San Francisco Hospital, Stanford Service, since 1926. At Stanford since 1921.

†BARNETT, CHARLES WENTWORTH (123) 1950 Washington, SF-sf
Clinical Instructor in Medicine [(Ordway 9459)

A.B., Stanford, 1923; M.D., Harvard, 1927. Interne, Lane and Stanford University Hospitals, 1927–28, Assistant Resident in Medicine, 1928–29, Resident, 1929–30. At Stanford since 1927.

†BARNETT, GEORGE DE FOREST (123) 662 Mirada (PA 8219)
Professor of Medicine

A.B., Stanford, 1906, A.M., 1909, M.D., 1913. Instructor in Chemistry, Stanford University, 1909–10; Student, Johns Hopkins Medical School, 1910–12; Senior House Officer, Lane Hospital, 1914–15; Lieutenant, M.C., U.S.N.R.F., 1917–19. At Stanford since 1915.

†BASSETT, LEE EMERSON (123) 740 Santa Ynez-*1858* (PA 4438)
Professor of English (Public Speaking)

A.B., Stanford, 1901. Graduate, Cumnock School of Oratory, Los Angeles, 1898; Instructor in Public Speaking, University of Southern California, 1898–99; Student, School of Expression, Boston, 1901; Student, Oxford University, England, 1907–8; Acting Associate Professor of Public Speaking, University of Washington, 1912–13; Professor of Public Speaking, University of Colorado, Summer Session, 1919, 1923, University of California, Intersession, 1922, Summer Session, 1930, Northwestern University, Summer Session, 1925, Utah Agricultural College, Summer Session, 1929. At Stanford since 1900.

†BAUMBERGER, JAMES PERCY (1234) 328 Churchill, P-p (PA 8140)
Associate Professor of Physiology

B.S., California, 1914; M.S., Harvard, 1916, D.Sc., 1918. Student, Yale Army Laboratory School, 1918; Assistant in Zoölogy, Harvard University, 1914–18, Assistant in Botany, 1918, Austin Teaching Fellow in Zoölogy, 1917–18, Teaching Fellow in Physiology, 1922; Assistant in Physiology, Radcliffe College, 1917, Assistant in Entomology, 1918; Instructor in Natural Sciences, Lowthorpe Horticulture School, 1915–18; Traumatic Shock Laboratory, A.E.F., 1918–19; C.R.B. and American Scandinavian Fellow for Research in Bruxelles, Naples, Lund, and Copenhagen, June 1925–December 1926. At Stanford since 1919.

†BEACH, WALTER GREENWOOD (123) 521 Salvatierra* (PA 5649)
Professor of Social Science

A.B., Marietta, 1888; A.B., Harvard, 1891, A.M., 1892. Professor of Philosophy and History, Marietta College for Women, 1893–97; Student, Stanford University, 1897–

98; Assistant Professor and afterwa.d Professor and Head of Department of Economic Science and History, State College of Washington, 1898–1910; Professor of Social Science, University of Washington, 1910–17; Dean of College of Sciences and Arts, and Professor of Social Science, State College of Washington, 1917–20; Lecturer in Economics, University of California, Summer Session, 1924. At Stanford since 1920.

†Beard, Paul Jay (123) 530 Webster, P-p (PA 5894)
Assistant Professor of Sanitary Sciences (Civil Engineering)

B.S., Iowa State College of Agriculture and Mechanical Arts, 1925, M.S., 1927; Ph.D., Stanford, 1929.

†Becking, Laurence B. (1) Twelfth and Dolores, Carmel-c (Carmel 129)
Herzstein Professor of Biology

A.B., Utrecht, 1917, M.S., 1919, D.Sc., 1921; Ph.D., Stanford, 1921. At Stanford 1920–30.

Bédé, Jean-Albert (4) 220 Stanford Union* (PA 3121)
Acting Assistant Professor of French

Licencié ès lettres (classiques), Paris, 1922; Élève de l'École Normale Supérieure, Paris, 1924–27; Licencié ès lettres (modernes: Anglais), Paris, 1925; Agrégé des Lettres, Paris, 1927; Diplomé de l'École des Sciences Politiques, Paris, 1929; Professeur de première au lycée de Clermont-Ferrand, France, 1929; Instructor in French, Princeton, 1929 30, Assistant Professor, since 1930.

†Bell, Reginald (1234) 436 Tennyson, P-*2013* (PA 21668)
Assistant in Educational Research

A.B., Oberlin, 1916; A.M., Stanford, 1928. Cubberley Fellow in School Administration, Stanford, 1928–29, Instructor in Citizenship, 1928–30. At Stanford since 1928.

†Benjamin, Harold Raymond Wayne (134) 661 Columbia, P*
Associate Professor of Education, and Director of Practice Teaching [(PA 21895)

A.B., University of Oregon, 1920, A.M., 1924; Ph.D., Stanford, 1927. Principal, Elementary Schools, Salem (Ore.), 1915–17; Superintendent of Schools, Umatilla (Ore.), 1920–22; Principal of University High School and Assistant Professor of Education, University of Oregon, 1922–25; Acting Assistant Professor of Education, Michigan State Normal College, Ypsilanti (Mich.), Summer Session, 1924; Assistant in Practice Teaching, Stanford, 1925–27; Professorial Lecturer in Education, University of Minnesota, Winter Quarter, 1930–31. At Stanford since 1925.

Bennett, Cassie E. (Mrs.) (1234) 158 Kingsley, P* (PA 7940)
Secretary, Economics

At Stanford since 1924.

Bennett, Garry Eaton (1234) 650 Lasuen-*3039* (PA 5923)
Assistant Director of Golf

At Stanford since 1929.

†Bennett, Merrill Kelley (1234) 1103 Ramona, P-p (PA 3659)
Economist, Food Research Institute

Ph.B., Brown, 1920, A.M., 1921; A.M., Harvard, 1926; Ph.D., Stanford, 1927. Assistant in English, Brown, 1920–21, Instructor, 1921–22; Instructor in English, Stanford, 1922–23, Junior Research Associate, Food Research Institute, 1923–25; Weld Fellow in Economics, Harvard, 1925–26. At Stanford, 1922–25, and since 1926.

Bergstrom, Francis William (124) 585 Salvatierra* (PA 7795)
Assistant Professor of Chemistry

A.B., Stanford, 1918, Engineer, 1919, Ph.D., 1922. National Research Fellow in Chemistry, Clark and Brown Universities, 1922–25. At Stanford since 1925.

BERING, BARRY FARMER (4) 257 Toyon-*2383* (PA 3121)
Acting Instructor in Mathematics

A.B., Stanford, 1926, A.M., 1929. Assistant in Instruction, Mathematics, Stanford, 1928–29; Assistant Professor of Mathematics, San Jose State Teachers College, since 1929.

†BINGHAM, JOSEPH WALTER (123) 653 Melville, P* (PA 21766)
Professor of Law

A.B., Chicago, 1902, J.D., 1904. In practice of law, Chicago, 1904–5; Acting Assistant Professor of Law, Cornell University, 1905–7; Acting Professor of Law, University of Chicago, Summer Quarter, 1916; Acting Professor of Law, University of Michigan, Summer Session, 1923; Acting Professor of Law, University of California, Summer Session, 1925; Visiting Professor of Law, Columbia, 1926–27; Acting Professor of Law, University of Wisconsin, Summer Session, 1927. At Stanford since 1907.

†BLACKWELDER, ELIOT (12) Portola Road-*N* (PA 8034)
Professor of Geology

A.B., Chicago, 1901, Ph.D., 1914. Fellow and Assistant in Geology, University of Chicago, 1902–3; Paleontologist, Carnegie Institution Expedition to China, 1903–4; Instructor and afterward Professor of Geology, University of Wisconsin, 1905–16; Professor and Head of Department of Geology, University of Illinois, 1916–19; Lecturer in Geology, University of Chicago, 1907, 1916, Stanford University, 1919, Harvard University, 1921; Geologist, U.S. Geological Survey, 1902, 1906–18; Chief Geologist, Argus Oil Company, 1919–21; Manager, Teton Syndicate, 1921–22. At Stanford since 1922.

†BLAIR, JULIAN MACFARLANE (3) 330 Waverley, P-p
Acting Instructor in Chemistry

B.S., Vanderbilt, 1914, A.M., 1920. Assistant in Chemistry, Vanderbilt, 1910–14; Professor of Chemistry, Rollins College, 1918–20; Assistant Professor of Physics, University of Colorado, since 1920.

BLICHFELDT, HANS FREDERIK (123) Casa Real Apts., P-*875* (PA 21506)
Professor of Mathematics

A.B., Stanford, 1896; Ph.D., Leipzig, 1898. Associate Professor of Mathematics, University of Chicago, Summer Quarter, 1911; Professor of Mathematics, Columbia University, Summer Sessions, 1924, 1925. At Stanford since 1897.

†BLINKS, LAWRENCE ROGERS (4) Hopkins Marine Station,
Lecturer in Plant Physiology [Pacific Grove-pg

B.S., Harvard, 1923, A.M., 1925, Ph.D., 1926. Bermuda Biological Station, 1923–24; Investigator, Tortugas Laboratory, Carnegie Institution, 1926–29; Assistant in General Physiology, Rockefeller Institute for Medical Research, 1926–29, Associate, since 1929.

†BLODGETT, DAVID P. (1234) 130 Cowper, P-p (PA 7540)
Office Manager, Treasurer's Office

At Stanford since 1907.

†BLOOMFIELD, ARTHUR LEONARD (1234) 245 Locust, SF-sf (Fillmore 9544)
Professor of Medicine

A.B., Johns Hopkins, 1907, M.D., 1911. Assistant, Instructor, Associate in Medicine, Johns Hopkins, 1912–22, Associate Professor of Medicine, 1922–26. At Stanford since 1926.

†BOARDMAN, WALTER WHITNEY (123) 37 Walnut, SF-sf (Fillmore 2506)
Associate Clinical Professor of Medicine

M.D., Cooper Medical College, 1909. Assistant in Phipps Dispensary, Johns Hopkins Hospital, 1910, Assistant in Actinography and Externe in Gynecology, 1911; Lieutenant, U.S.N.R.F., July 1917 to December 1918. At Stanford since 1912.

BOGGS, THEODORE HARDING (123) 203 Bryant, P* (PA 21045)
Professor of Economics

A.B., Acadia, 1902; A.B., Yale, 1905, Ph.D., 1908. Fellow in Economics, Yale, 1908–11; Assistant Professor of Economics, Dartmouth, 1911–16; Assistant Professor of Economics, University of British Columbia, 1916–19, Professor, 1919–30; Acting Professor of Economics, University of California, Summer Session, 1924; Acting Professor of Economics, Stanford, 1926–27. At Stanford, 1926–27, and since 1930.

†BOHR, HARALD AUGUST (12) 727 Addison, P-p (PA 21295)
Acting Professor of Mathematics

Magister, Copenhagen, 1909, Ph.D., 1910. Lecturer, University of Copenhagen, 1910–15; Professor of Mathematics, Technical School, Copenhagen, 1915–30; Professor of Mathematics, University of Copenhagen, since 1930.

BOLES, VIRGINIA STUART (MRS.) (1234) 260 Fulton, Redwood City*
Secretary, Mathematics [(RC 754J)

A.B., Stanford, 1911. At Stanford since 1927.

BOTTS, GRETCHEN KRONCKE (MRS.) (123) 835 East Julian, SJ*
Instructor in Physical Education for Women [(Ballard 7984M)

B.S., University of Wisconsin, 1924. Instructor, Western Illinois State Teachers College, 1924–26; Instructor, San Jose State Teachers College, 1926–29. At Stanford since 1930.

BOULWARE, EDNA (1234) 170 Bryant, P* (PA 5389)
Secretary, Chemistry

At Stanford since 1916.

BRADLEY, HAROLD WHITMAN (123) 835 Homer, P* (PA 7896)
Instructor in History

A.B., Pomona, 1925, A.M., 1926. Instructor in History, Burbank High School, 1926–27; Instructor in History, Santa Barbara State Teachers College, 1929–30. At Stanford since 1930.

†BRADSHAW, JAMES (1234) 2351 Tasso, P* (PA 5750)
Assistant Director, School of Hygiene and Physical Education

A.B., University of Nevada, 1922. At Stanford since 1928.

†BRAND, CARL FREMONT (124) 510 Princeton, P-*1696* (PA 22559)
Associate Professor of History

A.B., Indiana, 1915, A.M., 1916; A.M., Harvard, 1918, Ph.D., 1923. Teacher of History, Hammond (Ind.) High School, 1916–17; University Scholar, Harvard University, 1917–18, Austin Teaching Fellow, 1918–19; Instructor in History, Smith College, 1919–20; Parker Traveling Fellow, Harvard University, 1920–21; Instructor in History, University of Michigan, 1921–24; on Faculty, Washington State College, Summer Session, 1925, University of Washington, 1927. At Stanford since 1924.

†BRANDSTEN, ERNST M. (123) Searsville Lake Park-*1085* (Woodside 443)
Advisory Director of Water Sports

Teacher of Swimming, Municipal Baths, Stockholm, Sweden, 1905; Swimming Coach, Neptune Swimming Club, Stockholm, 1906, University of California, 1911, 1913–15. At Stanford since 1915.

BRANDSTEN, GRETA JOHANNSEN (MRS.) (2) Searsville Lake Park-*1085*
Acting Instructor in Swimming and Diving [(Woodside 443)

At Stanford, 1916–27.

BRASHEAR, EDITH A. (MRS.) (4) 256 University, Los Gatos-lg (LG 39R)
Secretary, Registrar's Office

At Stanford since 1926.

†BRENNER, JAMES EMMET (1234) 1044 Hamilton, P-p (PA 3634)
Law Librarian, and Associate Professor of Law

Graduate, United States Naval Academy, 1913; J.D., Stanford, 1927. At Stanford since 1927.

†BRIGGS, WILLIAM DINSMORE (1234) 526 Mayfield-*27* (PA 21170)
Professor of English

A.B., Stanford, 1896; A.M., Harvard, 1899, Ph.D., 1900. Student, Johns Hopkins University, 1896–97; Instructor in English and German, University of Vermont, 1900–1901; Instructor in English, Western Reserve University, 1901–6. At Stanford since 1906.

†BROOKS, LEROY (123) 140 San Benito, SF-sf (Montrose 8628)
Clinical Instructor in Surgery

B.S., M.D., F.A.C.S., Marquette University, 1919. Milwaukee Hospital, 1919–20; House Doctor, Stanford Hospital, 1920–21. At Stanford since 1929.

BROWN, ADELAIDE (12) 45 Sixteenth Ave., SF-sf (Evergreen 6917)
Lecturer in Pediatrics (Child Hygiene)

A.B., Smith, 1888; M.D., Cooper Medical College, 1892. Interne, New England Hospital, Boston (Mass.), 1893; Student, Berlin, Leipzig, Dresden, Vienna, 1894; Student, Johns Hopkins, 1898; Children's Hospital, 1899–1915; Member, State Board of Health, since 1915. At Stanford since 1920.

†BROWN, BUFORD OTIS (124) 613 Salvatierra-*678* (PA 6835)
Associate Professor of Journalism

A.B., Missouri, 1908, B.J., 1912. Bursar, Texas Woman's College, 1909–11; Instructor in Journalism, University of Texas, 1914–17; Secretary, Ground School of Military Aëronautics, University of Texas, 1917; Visiting Lecturer, Texas Agricultural and Mechanical College, Summer Sessions, 1922, 1923; Editor *Plainview* (Tex.) *Evening Herald,* 1912–14, *Vernon Record,* 1918–22; Special Correspondent *Wichita Falls Times* and *Dallas News,* 1922; Associate Professor, University of California Summer Session in Los Angeles, 1924-*27*; Visiting Professor, University of Oklahoma, Autumn, 1929. At Stanford since 1923.

†BROWN, HAROLD CHAPMAN (14) 401 Tennyson, P* (PA 3994)
Professor of Philosophy

A.B., Williams, 1901; A.M., Harvard, 1903, Ph.D., 1905. Student, University of Berlin, 1903–4; Assistant in Philosophy, Harvard University, 1904–6; Instructor in Philosophy, Columbia University, 1906–14, Columbia University, Summer Sessions, 1915, 1917, 1929; Acting Professor, University of California, Second Semester, 1922, Intersessions, 1920, 1922, 1924, 1926; Acting Professor, University of Washington, Summer Quarter, 1925, University of Chicago, Summer Quarter, 1927; Visiting Professor, University of Texas, Second Semester, 1928–29, 1930–31, University of California, Autumn, 1930. At Stanford since 1914.

BROWN, JOSEPH GRANT (123) 1013 Ramona, P* (PA 21584)
Associate Professor of Physics

A.B., Stanford, 1901, A.M., 1903. Graduate, Illinois State Normal University, 1894, Instructor in Physics and Chemistry, 1894–98. At Stanford since 1900.

†BROWN, WALTER HENRY (1234) 2326 Ramona, P-p (PA 5473)
Professor of Hygiene and Physical Education, Director of Division of Informational Hygiene, and Director of University Health Service

M.D., Jefferson Medical College, 1906. C.P.H., Harvard Technology School for Health Officers, 1914; Instructor, Department of Hygiene, Yale University, 1916–19; Lecturer in Public Health, School of Social Work, University of Oregon, 1925–27. At Stanford since 1928.

†BROWN, WARNER (4) Kingscote*
Acting Professor of Psychology

A.B., California, 1904, A.M., 1905; Ph.D., Columbia, 1908. Assistant in Psychology, California, 1904–6; Assistant in Philosophy, Columbia, 1906–7, in Psychology, 1907–8; Instructor in Psychology, California, 1908–13, Assistant Professor, 1913–20, Associate Professor, 1920–23, Professor, since 1923.

BUCKINGHAM, ELISABETH LEE (134) 534 Lasuen-*102* (PA 6624)
Associate Professor of English (Public Speaking)

A.B., Stanford, 1910, A.M., 1914. Student, Columbia College of Expression, Summer, 1913; Teacher of Public Speaking, State Normal School, San Jose, 1914; Student, Columbia University, 1917–18, and Summer Sessions, 1916, 1919. At Stanford since 1911.

BUGGE, ELWYN (1234) 475 Forest, P* (PA 6029)
Instructor in Physical Education and Hygiene

A.B., Stanford, 1926. At Stanford since 1928.

†BUNN, JOHN WILLIAM (1234) 273 Mariposa, P* (PA 7641)
Director of Basketball

B.S. (in Mechanical Engineering), Kansas, 1921. Instructor in Engineering Drawing and Industrial Engineering, Kansas, 1921–23; All Freshman Coach, Assistant in Varsity Basketball, Instructor in Industrial Engineering, Kansas, 1923–26; Assistant Professor of Industrial Engineering and Physical Education, Assistant Director of Athletics, Varsity Baseball, Freshman and Varsity Basketball, Kansas, 1926–30, Assistant, Varsity Football, 1928–30. At Stanford since 1930.

BUNTING, HELEN MASTERS (123) 736 Coronado-*825* (PA 4551)
Associate Professor of Physical Education for Women

A.B., Stanford, 1924; A.M., Columbia, 1927. Certificate, Department of Hygiene and Physical Education, Wellesley College, 1912; Instructor in Physical Education, Centenary Collegiate Institute, Hackettstown (N.J.), 1912–14; Director, Physical Education for Women, University of Colorado, 1914–19; Director of Physical Education for Women, Stanford, 1919–29. At Stanford since 1919.

†BURKHARD, WILLIAM GEORGE (123) 260 San Jose, SF-sf (Valencia 6843)
Clinical Instructor in Medicine (Tuberculosis)

A.B., Stanford, 1923, M.D., 1927. House Officer in Surgery, Gynecology, and Obstetrics, San Francisco Hospital, 1927–28, Assistant Visiting Physician, 1928–30, Assistant in Medicine, Stanford, 1928–30; Director of Tuberculosis, San Francisco Hospital and San Francisco Health Farm, since 1930. At Stanford since 1928.

†BURLINGAME, LEONAS LANCELOT (123) 614 Alvarado* (PA 5727)
Professor of Biology

Ph.B., Ohio Northern University, 1901; A.B., Chicago, 1906, Ph.D., 1908. Instructor in Biology, Ohio Northern University, 1901–4; Fellow in Botany, University of Chicago, 1906, Assistant, 1906–8; Acting Professor of Biology, University of Oregon, Summer Sessions, 1924, 1925. At Stanford since 1908.

†BURLINGAME, RALEIGH W. (123) San Francisco Hospital, SF-sf
Clinical Instructor in Pediatrics [(Mission 0820)

M.D., University of Missouri, 1912. Interne, House of Correction Hospital, Chicago, 1915–16; House Officer, San Francisco Hospital, 1916–17; Resident Physician in charge, San Francisco Isolation Hospitals, since 1917; Diagnostician in Communicable Diseases to San Francisco Board of Health since 1918; Director of San Francisco Social Hygiene Clinic, since 1919; Instructor to Nurses in Communicable Diseases, San Francisco Hospital, since 1918, Stanford Hospital, 1919–27. At Stanford since 1927.

†BURROWS, JOHN ROBERT (123) 2300 Webster, SF-sf (Fillmore 2833)
Assistant Clinical Professor of Surgery (Anesthesia)

M.D., Cooper Medical College, 1906. Assistant in Ophthalmology, Cooper Medical College, 1909; Assistant Anesthetist, Lane Hospital, since 1910. At Stanford, 1912–19, and since 1921.

†BURSCH, JAMES FREDERICK (4) 656 Bowdoin, P-Station A, p (PA 21107)
Acting Assistant Professor of Education

B.S., Kansas State Teachers College, 1920; A.M., Stanford, 1923, Ph.D., 1927. Principal, Brownell (Kans.) Elementary School, 1915–16; Superintendent, Montezuma (Kans.) Consolidated Schools, 1920–22; Associate Professor of Education,

Oregon State College, 1923–26, Professor, 1927–28; Cubberley Fellow in School Administration, Stanford, 1926–27; Part-time Instructor, San Jose State Teachers College, 1927; Lecturer in Education, University of Idaho, Summer, 1929; Director of Research and Student Personnel, Sacramento City Schools, since 1928.

BUSCHE, MARGARET JEANETTE (123) 2340 Clay, SF-sf (West 8000)
Instructor in Theory of Nursing

B.S., Cincinnati, 1922. Graduate, School of Nursing and Health, University of Cincinnati, 1921, Assistant Instructor, 1921–23; Instructor, Cincinnati and Hamilton County Chapter, American Red Cross, 1923–24; Instructor, School of Nursing, The Tennessee Coal, Iron, and R.R. Co., Fairfield (Ala.), 1924–25. At Stanford since 1926.

†BUTLER, EDMUND (123) 2539 Vallejo, SF-sf (Fillmore 1985)
Associate Clinical Professor of Surgery

M.D., Cooper Medical College, 1911; Senior Interne, Resident in Surgery, Lane Hospital, 1912–14; Surgeon, San Francisco Emergency Hospital, 1914–19; Lieutenant, U.S.N.R.F., December 1917 to March 1919; Chief Surgeon, San Francisco Emergency Service, 1919. At Stanford since 1920.

†BUTT, EDWARD MERCHANT (123) 2250 Bay, SF-sf (Fillmore 9389)
Instructor in Pathology

A.B., Stanford, 1924, M.D., 1929. Assistant in Pharmacology, Stanford, 1926–28. At Stanford since 1926.

†BUTTON, ROY H. (1234) 812 Forest, P-*2636* (PA 5540)
Superintendent of Buildings and Grounds

At Stanford since 1924.

†CALKINS, ROBERT DEBLOIS, JR. (1234) 450 Princeton, P* (PA 22487)
Junior Research Associate, Food Research Institute

B.S., William and Mary, 1925; A.M., Stanford, 1929. At Stanford since 1930.

†CAMPBELL, JOHN LOCKHART (123) 716 Carmel, Berkeley-b (Berkeley 2533J)
Clinic Dentist

D.D.S., California, 1917. Clinic Dentist, San Francisco Polyclinic, 1917–18, Baby Hospital of Alameda County, 1917–19; Detention Home of Juvenile Court of City and County of San Francisco, since 1918; Assistant in Clinical Dentistry, University of California, 1918–19; Lieutenant, D.C., U.S.A. At Stanford since 1919.

†CANNING, JOHN BENNET (123) Sandhill Road-*76* (PA 21586)
Professor of Economics

Ph.B., Chicago, 1913, Ph.D., 1929. Graduate Scholar in Political Economy, University of Chicago, 1913–14, Assistant, 1914–15, Instructor, 1915–17; Assistant Professor of Economics, University of California, Intersession, 1920, 1921; Assistant Professor of Political Economy, University of Chicago, Summer Quarter, 1924. At Stanford since 1919.

†CANNON, WILLIAM AUSTIN (123) 535 Cowper, P-*925*
Lecturer in Botany

A.B., Stanford, 1899, A.M., 1900; Ph.D., Columbia, 1902. Staff Member, Department of Botanical Research, Carnegie Institution of Washington, 1904–24, Research Associate, 1925.

†CARR, WILLIAM GEORGE (4) 1612 California, P-Station A, p
Acting Associate Professor of Education

A.B., Stanford, 1924, A.M., 1926, Ph.D., 1929. Teacher, Glendale City Schools, 1924–25; Library Assistant, Stanford, 1925–26; Professor of Education, Pacific University, 1926–27; Teaching Fellow in School Administration, Stanford, 1927–29; Director of Research, California Teachers Association, 1927–28; Assistant Director, Research Division, National Education Association, 1929–31; Acting Assistant Professor of Education, Stanford, Summer Quarter, 1929; Visiting Professor of Education, Michigan, Summer Session, 1930.

CARRITHERS, MARGARET LOIS (1234) 151 Roble-*2238* (PA 5171)
Nurse, Student Health Service for Women

A.B., Stanford, 1929. R.N., Stanford School of Nursing, 1929. At Stanford since 1929.

†CARROLL, JOSEPH SNYDER (123) 111 Fulton P-p (PA 4772)
Associate Professor of Electrical Engineering

B.S., Utah, 1920; Engineer, Stanford, 1924, Ph.D., 1929. Western Electric Engineering Laboratories, New York City, Summer, 1916; G.E. Test, Schenectady (N.Y.), Summer, 1920; Instructor, University of Utah, 1920–23. At Stanford since 1924.

†CARSON, DONALD ALFONSO (123) 340 Upper Terrace, SF-sf
Clinical Instructor in Medicine [(Underhill 1946)

A.B., Yale, 1919; M.D., Columbia, 1925. Interne, Johns Hopkins Hospital, Baltimore, 1925–26; Assistant Resident Physician, Presbyterian Hospital, New York, and Assistant Instructor in Medicine, College of Physicians and Surgeons, 1926–27. At Stanford since 1927.

†CASE, ROSCOE DAVID (4) 531 Hawthorne, P-*993*
Acting Assistant Professor of Education

A.B., University of Denver, 1922, A.M., 1923; Ed.D., Stanford, 1931. Superintendent of Schools, Goodell (Iowa), 1913–14, Kanawha (Iowa), 1914–19, Gowrie (Iowa), 1919–21, Cripple Creek (Colo.), 1922–24, Brush (Colo.), since 1924; Instructor in English, University of Denver, 1921–22; Extension Instructor, University of Colorado and Colorado State Teachers College, 1926–29; Acting Assistant Professor of Education, Stanford, Summer Quarters, 1929, 1930.

†CATHCART, ARTHUR MARTIN (1234) 1215 Emerson, P* (PA 8519)
Professor of Law, and Acting Dean of School of Law

A.B., Stanford, 1896. Student, Harvard University, 1896–97; Attorney at Law, Colorado Springs (Colo.), 1903–4; Lecturer in Law, University of California, Summer Sessions, 1908, 1924; Professor of Law, University of Chicago, Summer Quarters, 1911, 1922; Lecturer in Law, University of California, 1927–28. At Stanford since 1904.

†CATTON, JOSEPH (123) 2172 Pacific, SF-sf (Fillmore 0094)
Assistant Clinical Professor of Medicine (Neurology)

B.S., California, 1911, M.D., 1913. Voluntary Assistant in Medicine, University of California, 1914–16, Assistant in Medicine, 1916; Chief of Medical Clinic, San Francisco Polyclinic, 1917–19; Assistant Visiting Physician, San Francisco Hospital, 1914–17, Visiting Physician, 1917; Major, M.C., U.S.A.; Consultant, Neuropsychiatry, U.S. Veterans' Bureau and U.S. Employees' Compensation Commission. At Stanford since 1919.

†CHAMBERLAIN, WILLIAM EDWARD (1) 11 San Leandro Way, SF-sf
Professor of Medicine (Radiology), and [(Lockhaven 4283)
Director of Department of Radiology

B.S., California, 1913, M.D., 1916. Assistant in Roentgenology, University of California Medical School, 1916–17; Visiting Roentgenologist to the French Hospital, San Francisco, 1917; Roentgenologist of U.S. Navy Base Hospital No. 2, 1917–18; Instructor in Roentgenology, University of California Medical School, 1919–20; Roentgenologist in Charge, Children's, Hahnemann, and St. Mary's Hospitals, San Francisco, 1919–20. At Stanford 1920–30.

†CHANDLER, LOREN ROSCOE (123) 11 San Leandro Way, SF-sf
Clinical Instructor in Surgery [(Overland 5982)

A.B., Stanford, 1920, M.D., 1923. Senior Interne in Surgery, Lane Hospital, 1923–24; Diplomate, National Board of Medical Examiners, 1923; Resident Surgeon, Lane Hospital, 1924–25. At Stanford since 1923.

CHAPIN, LELAND TAYLOR (123) 8 Stanford Union-*711* (PA 3121)
Acting Instructor in English (Public Speaking)

A.B., Willamette University, 1925. Instructor in English and Public Speaking, Lingnan University, Canton (China), 1925–28; Instructor in Public Speaking, Willamette University, 1928–29.

†Cheney, Garnett (123) 140 Chaves, SF-sf (Lockhaven 3176)
Clinical Instructor in Medicine

A.B., California, 1920; M.D., Harvard, 1923. Graduate Student in Pathology, Vienna (six months); Graduate Student in Medicine, London (fifteen months); Senior Interne in Medicine, Lane Hospital, 1925–26; Resident in Medicine, Lane Hospital, 1926–27; Assistant Visiting Physician to the San Francisco Relief Home, since 1928; Consultant Gastroenterologist to the Veterans' Hospital, Palo Alto, since 1928; Assistant Visiting Physician to the San Francisco (City and County) Hospital. At Stanford since 1925.

†Cheney, William Fitch (123) 33 Spruce, SF-sf (Bayview 6921)
Clinical Professor of Medicine

B.L., California, 1885; M.D., Cooper Medical College, 1889. Professor of Principles and Practice of Medicine, Cooper Medical College, 1898–1912. At Stanford since 1909.

†von Christierson, Sigurd (123) 70 San Andreas Way, SF-sf
Clinical Instructor in Surgery (Otology, [(Montrose 8970)
Rhinology, Laryngology)

A.B., Stanford, 1917, M.D., 1922. Resident, Ear, Nose, and Throat, Stanford Hospital, 1922–23; Visiting Aurist, Shriners' Hospital; Aurist, Southern Pacific Hospital; Chief of Ear, Nose, and Throat Clinic, St. Luke's Hospital. At Stanford since 1922.

Church, Vivienne (1234) Orange, Los Altos* (LA 31)
Secretary to Dean of Men

At Stanford since 1923.

†Clark, Arthur Bridgman (124) 767 Santa Ynez* (PA 4210)
Professor of Education (Graphic Art)

B.Ar., Syracuse, 1888, M.Ar., 1891. Director of Trade Schools and Instructor in Drawing, New York State Reformatory, Elmira (N.Y.), 1888–89; Instructor in Architecture, Syracuse University, 1889–92; Student in Painting, New York School of Art and Académie Carmen, Paris, 1898–99; Instructor in Pottery, California School of Arts and Crafts, Berkeley, Summer Sessions, 1913, 1914; Director, San Francisco Art Association, 1917; Lecturer, California School of Fine Arts, 1919–20; President, Pacific Arts Association, 1925–28. At Stanford since 1892.

Clark, Esther Bridgman (123) 767 Santa Ynez (PA 4210)
Clinical Instructor in Medicine

A.B., Stanford, 1921, M.D., 1925. Senior Interne in Pediatrics, Lane Hospital, 1925–26, Resident, 1926–27. At Stanford since 1930.

†Clark, Harry (123) 1934 Waverley, P* (PA 8482)
Research Associate in Biophysics

B.S., New York University, 1907. M.S., 1908; A.M., Harvard, 1911, Ph.D., 1914. Assistant in Physics, New York University, 1905–7, in Mathematics, 1906–7; Assistant in Physics, Stevens Institute, 1908–9; Assistant and Fellow, Harvard, 1910–14, Instructor, 1914–17; Instructor, Radcliffe, 1914, 1916; Professor, Victoria University College (New Zealand), 1917–19; Associate Professor, Oberlin, 1919–20; Associate Member, Rockefeller Institute for Medical Research, 1920–29; Acting Professor, Stanford, Summer Quarter, 1928. At Stanford since 1929.

Clark, John Charles (124) 205 Stanford Union-*1011* (PA 3121)
Instructor in Physics

A.B., Ohio Wesleyan, 1925; M.S., University of Chicago, 1927. Fellow in Physics, Chicago, 1925–26, Assistant in Physics, 1926–27; Instructor in Physics, Lehigh University, 1927–29; Research Assistant, Stanford, 1929–30. At Stanford since 1929.

[†Clark, William Redwood Price 2710 Filbert, SF-sf (Walnut 5106)
Clinical Professor of Medicine (Tuberculosis)]

M.D., Cooper Medical College, 1899. Assistant Visiting Physician, City and County Hospital, San Francisco, 1901–4; Instructor in Medicine, Cooper Medical College, 1905–11; Visiting Physician, Clinic of the San Francisco Association for the Study

and Prevention of Tuberculosis, 1909–12; Visiting Physician, City and County Tuberculosis Hospital, San Francisco, 1911–26; Major, M.C., U.S.A., November 1917 to January 1919; Consultant in Chest Diseases, Diagnostic Center, U.S. Veterans' Hospital, Palo Alto, since January 1928. At Stanford since 1911.

CLIFTON, CHARLES EGOLF (1234) 510 Washington, P* (PA 21392)
Assistant Professor of Bacteriology

A.B., Ohio State, 1925, M.Sc., 1926; Ph.D., Minnesota, 1928. Assistant in Physical Chemistry, Ohio State, 1925–27; Fellow in Biophysics, Mayo Foundation, 1927–28; Research Chemist, Eastman Kodak Co., 1929. At Stanford since 1929.

†CLINE, JOHN WESLEY (123) 2299 Pacific, SF-sf (Fillmore 7521)
Clinical Instructor in Surgery

A.B., University of California, 1921; M.D., Harvard, 1925. Massachusetts General Hospital, 1925–27; Resident Surgeon, Bellevue Hospital, 1927–29. At Stanford since 1930.

†CLUBB, MERREL DARE (4) 583 Salvatierra*
Acting Assistant Professor of English

A.B., Pomona, 1920; Ph.D., Yale, 1924. Assistant Professor of English, Miami University, 1924–29; Professor of English Literature, Texas Christian University, 1929–31; Acting Professor of English, University of Texas, Summer, 1930.

†COESTER, ALFRED (123) 435 Homer, P-*1725* (PA 4287)
Professor of Spanish-American Literature

A.B., Harvard, 1896, A.M., 1906, Ph.D., 1906. Student, University of Seville, Spain, 1901–2, University of Berlin, 1894–95, Sorbonne, 1895; Secretary-Treasurer, American Association of Teachers of Spanish, 1917–26; Editor, *Hispania;* Caballero de la real orden de Isabel la Católica; Member, Hispanic Society of America; Corresponding member, Real Academia Hispano-Americana de Ciencias y Artes, Cadiz; Corresponding member, Junta de Historia y Numismática Americana, Buenos Aires; Member, Pan American Society; Member, National Council of the Inter-American Institute of Intellectual Co-operation. At Stanford, Summer Quarter, 1919, and since 1920.

COOPER, ALICE CECILIA (4) 1429 Bellevue, Burlingame-b (B 2624)
Acting Assistant Professor of Education, and Lecturer in English

A.B., Stanford, 1907, A.M., 1908. Instructor in English, Polytechnic High School, Los Angeles, 1908–20; Instructor in English, University High School, Oakland, 1920–21, Assistant Supervisor of English, 1921–23, Supervisor of Senior English, 1923–28; Instructor in Methods in Teaching English, University of California, 1923–28; Instructor in Literature, Modesto Junior College, since 1928; Lecturer in English, Stanford, Summer Quarters, 1926, 1930, Acting Assistant Professor of Education, Summer Quarters, 1928–30.

†COOPER, WILLIAM ALPHA (123) 625 Salvatierra (PA 6518)
Professor of German

A.B., Marietta, 1892, A.M., 1897, Litt.D., 1917. Student, Universities of Bonn, Leipzig, and Paris, 1892–94, Stanford University, 1901–3, University of Berlin, 1908–9; Instructor in German and French, Marietta College, 1895–99, Professor, 1899–1901; Ehrenmitglied, Deutsche Akademie, 1929. At Stanford since 1901.

†COOVER, JOHN EDGAR (123) 535 Salvatierra-*648* (PA 4617)
Fellow in Psychic Research, and Associate Professor of Psychology

A.B., Stanford, 1904, A.M., 1905, Ph.D., 1912. Principal, Como (Colo.) Schools, 1898–99; Principal, Sonora (Calif.) High School, 1905–7, Dixon High School, 1907–10; Assistant in Psychology, Stanford University, 1910–12; Captain, Sanitary Corps, U.S.A., Psychological Division, Medical Research Laboratory (Military Aëronautics), 1918–19; Professor in Psychological Laboratory, Johns Hopkins University, First Semester, 1927–28. At Stanford since 1910.

†COTTRELL, EDWIN ANGELL (123) 744 Coronado-*3004* (PA 7109)
Professor of Political Science

A.B., Swarthmore, 1907; A.M., Harvard, 1913. Instructor in Political Science, Pennsylvania State College, 1907–11, Assistant Registrar, 1909–11; Assistant in Gov-

ernment, Harvard University, 1911–15; Swarthmore Fellow, 1912–13; Instructor in Government, Wellesley College, 1912–17; Lecturer in Constitutional Government, Brown University, 1915–16; Secretary of the Boston Budget Commission, 1915; Assistant Secretary, Boston Chamber of Commerce, 1916–17; Professor of Political Science, and Director of the Bureau of Governmental Research, Ohio State University, 1917–19; Special Investigator, United States Bureau of Efficiency, 1918; Visiting Lecturer in Government, Harvard University, Summer, 1913, Spring, 1922; Visiting Professor, University of Washington, Summer Quarter, 1925. At Stanford since 1919.

†Cowdery, Karl Montague (1234) 621 Alvarado (PA 5879)
Assistant Registrar

A.B., Oberlin, 1915; A.M., Stanford, 1922, Ph.D., 1926. Student, Eugenics Record Office, Summer, 1915; Research Worker, Whittier State School, 1915–17; Psychological Examiner, U.S. Army, 1918; Assistant Superintendent, Whittier State School, 1919–22, Director of Education, 1922–23; Teaching Assistant in Psychology, Stanford, 1923–24. At Stanford since 1923.

Craig, Florence Margaret (1234) 332 Forest, P* (PA 3970)
Reviser, Catalogue Department, Library

A.B., University of Minnesota, 1914; B.L.S., University of Illinois, 1917. Assistant, University of Minnesota Library, 1917–18; with the H. W. Wilson Company, New York City, 1925–26. At Stanford, 1918–25, and since 1926.

†Craig, Hardin (234) 536 Gerona-*2815* (PA 7547)
Professor of English

A.B., Centre College, 1897; A.M., Princeton, 1899, Ph.D., 1901; Hon. Doctor, University of Padua, 1922. Instructor in English, Princeton, 1901–5, Edgerstoune Preceptor in English, 1905–10; Professor of English, University of Minnesota, 1910–19; Professor of English and Head of Department, University of Iowa, 1919–28. At Stanford since 1928.

Craig, Robert Glenn (123) Hotel Fairmont, SF-sf (Douglas 8800)
Clinical Instructor in Obstetrics and Gynecology

A.B., Washington and Lee University, 1917; M.D., Johns Hopkins, 1922. Resident House Officer, Johns Hopkins Hospital, 1922–23; Assistant in Pathology, Johns Hopkins Medical School, 1923–24, Assistant and Instructor in Gynecology, 1923–27; Assistant Resident in Gynecology, Johns Hopkins Hospital, 1923–26, Resident Gynecologist, 1926–27. At Stanford since 1928.

†Crane, Judson Adams (4) 611 Alvarado* (PA 4992)
Acting Professor of Law

A.B., Brown, 1905; LL.B., Harvard, 1909, S.J.D., 1915. Professor of Law, Pei Yang University (China), 1911–14; Assistant Professor of Law, George Washington University, 1915–17; Professor of Law, University of Pittsburgh, since 1917; Visiting Professor of Law, University of Southern California, 1928–29; Acting Professor of Law, Summer Sessions, Wisconsin, 1920, George Washington, 1927, Cornell, 1928.

†Crook, Welton Joseph (123) 675 San Juan-*985* (PA 4327)
Professor of Metallurgy

A.B., Stanford, 1911, Engineer, 1919. Chemist and Assayer, Department of Mines and Water Supply, Victorian Government, Australia, 1907–8; Assistant, Department of Metallurgy, Stanford University, 1910; Chief Chemist, Pacific Coast Steel Company, South San Francisco, 1911–13; Professor of Metallurgy, State School of Mines, South Dakota, 1913–17; Metallurgical Chemist, U.S. Bureau of Mines, P.P.I.E., 1915; Metallurgist and Chief Chemist, Pacific Coast Steel Company, 1917–19, Metallurgist and Chief Inspector, 1919–20, Chief Metallurgist, 1920–21; Cooperating Analyst, U.S. Bureau of Standards, since 1920; Consulting Engineer, U.S. Bureau of Mines, 1922; Consulting Metallurgical Engineer, Pacific Coast Steel Company, San Francisco, 1922–30, D. and B. Pump and Supply Company, Los Angeles, 1926–30, Elliott Core Drilling Company, Los Angeles, since 1926, General Petroleum Corporation, Los Angeles, since 1927, Rotary Process Refining Company, since 1929, Axelson Manufacturing Company, since 1930; Major Staff Specialist Reserve, U.S. Army, since 1927. At Stanford since 1921.

†Cross, Charles Norman (123) 634 Alvarado* (PA 7646)
Associate Professor of Mechanical Engineering

M.E., Cornell, 1906. Assistant Engineer, Long Island State Hospital, Brooklyn (N.Y.), 1905; Dynamo and Switchboard Attendant with the New York Edison Co., New York City, 1905–6; Electrician with the Lackawanna Steel Co., Buffalo (N.Y.), 1906; with Turbine Research Department of General Electric Company, Lynn (Mass.), 1914–15; Consulting Engineer, Pacific Gas and Electric Company, and Palo Alto Gas Company, 1917; Efficiency Engineer, Federal Fuel Administration, 1918; Member, Committee on Revision of Boiler Safety Orders, Industrial Accident Commission of the State of California, 1921–22; Consulting and Engineering work with various corporations during summer vacations. At Stanford since 1906.

†Cubberley, Ellwood Patterson (134) 610 Cabrillo (PA 3660)
Professor of Education, and Dean of School of Education

A.B., Indiana, 1891; A.M., Columbia, 1902, Ph.D., 1905; LL.D., Iowa, 1923. Instructor in Science, Ridgeville College (Ind.), 1891; Professor of Physical Science, Vincennes University (Ind.), 1891–93, President, 1893–96; Superintendent of City Schools, San Diego (Calif.), 1896–98; Honorary Fellow, Columbia University, 1901–2, 1904–5; Professor of Education, University of California, Summer Sessions, 1901, 1906, University of Chicago, Summer Quarter, 1910, Harvard University, second half-year, 1910–11; Visiting Professor, Columbia University, Summer Sessions, 1907, 1914, 1916, second half-year, 1915–16, and 1929–30. At Stanford since 1898.

†Cubbison, Donald Cameron (123) Portola Road* (PA 22235)
Professor of Military Science and Tactics

Graduate, United States Military Academy, 1904; Mounted Service School, 1910; Army School of the Line, 1921; General Staff School, 1922; Army War College, 1927; Distinguished Service Medal; Officer of the Legion of Honor (France); Croix de Guerre, with Palm (France); Lieutenant Colonel, Field Artillery. At Stanford since 1930.

†Cuddeback, Murray William (123) 228 Santa Rita, P-p (PA 6476)
Assistant Director of Physical Education

A.B., Stanford, 1926. Instructor, Marin Union Junior College, 1926–29. At Stanford since 1929.

†Culver, George Bliss (1234) Foothill Road* (PA 8110)
Dean of Men

A.B., Stanford, 1897; LL.B., George Washington University, 1902. With Smithsonian Institution, Washington (D.C.), 1898–99; Head of Biological Department, Los Angeles High School, 1907–20. At Stanford since 1920.

Cummings, N. Florence (123) 999 Broadway, SF-sf (Prospect 6629)
Director of Social Service and Public Health Nursing, and
Associate Professor of Nursing

St. Luke's Hospital Training School for Nurses (New Bedford, Mass.); Simmons College Public Health Nursing Course; Boston School of Social Work, 1915–16. At Stanford since 1923.

†Cuneo, Joseph Charles (123) 150 S. Fourteenth, SJ-sj (Ballard 7388)
Clinical Instructor in Medicine

B.S., Princeton, 1917; M.D., Johns Hopkins, 1922. Medical Interne, Johns Hopkins, 1922–23; Medical Resident, Allegheny General Hospital, Pittsburgh, 1923–24. At Stanford since 1927.

†Cushing, Oscar Kennedy (123) 37 Seventh Ave., SF-sf (Skyline 0987)
Lecturer in Law

†Cuthbertson, Stuart (123) South Third, Los Altos*
Acting Instructor in French

A.B., University of Illinois, 1917; Certificate, Université de Montpellier, France, 1919; A.M., University of Colorado, 1924. Instructor in Romance Languages, University of Colorado, 1925–27, Assistant Professor, 1927–30; Assistant in Spanish, Stanford, 1928–29.

†Cutting, James Arthur (123) Agnew-a (Ballard 1728)
Assistant Clinical Professor of Medicine (Psychiatry)

A.B., Stanford, 1906; M.D., Cooper Medical College, 1911. Interne, Lane Hospital, 1911–12, Senior Medical Interne and House Officer, 1912–13; Assistant Physician, Agnew State Hospital, since 1913. At Stanford since 1921.

Dallas, Donald Alexander (123) Olympic Club, SF-sf (Prospect 4400)
Clinical Instructor in Obstetrics and Gynecology

A.B., Stanford, 1923, M.D., 1926. Interne, San Francisco Hospital, 1925–26; Senior Interne, Obstetrics and Gynecology, Lane Hospital, 1926–27; Assistant Resident, Obstetrics, Johns Hopkins Hospital, 1927–28; Resident, Obstetrics and Gynecology, Lane Hospital, 1928–29; Assistant Visiting Obstetrician and Gynecologist to the San Francisco Hospital. At Stanford since 1928.

Damsgard, Lincoln C. (4) 109 Toyon* (PA 3121)
Acting Instructor in Mathematics

A.B., Union College, 1913. Professor of Mathematics and Astronomy, Union College, 1914–21; Lick Fellow in Astronomy, 1921–22; Professor of Mathematics and Astronomy, Washington College, 1922–24; Assistant in Astronomy, University of California, 1924–27; Instructor in Mathematics and Astronomy, San Mateo Junior College, 1927–30, Pasadena Junior College, since 1930.

†Danforth, Charles Haskell (123) 723 Santa Ynez* (PA 8611)
Professor of Anatomy

A.B., Tufts College, 1908, A.M., 1910; Ph.D., Washington University, 1912. Fellow in Biology, Tufts College, 1908, Instructor, 1910–11; Teaching Fellow in Anatomy, Harvard Medical School, 1910–11; Instructor in Anatomy, Washington University School of Medicine, 1908–14, Associate, 1914–16, Associate Professor, 1916–22; Lecturer in Gross Anatomy, Harvard Medical School, 1929–30. At Stanford since 1922.

†Davidson, Percy Erwin (123) Menlo Heights-*506* (PA 6880)
Associate Professor of Education

A.B., Stanford, 1898; A.M., Harvard, 1905; Ph.D., Columbia, 1914. Teacher, Grammar and High Schools, San Diego, 1898–1900; Supervisor of History and English Teaching, San Francisco State Normal School, 1900–1903; Assistant in Education, San Diego State Normal, 1903–4; Graduate Student, Teachers College, Columbia University, 1905–7; Instructor in Logic and History of Education, New York Training School for Teachers, 1906–7. At Stanford since 1907.

†Davis, Albert David (123) 735 Taylor, SF-sf (Franklin 4034)
Clinical Instructor in Surgery (Plastic Surgery)

D.D.S., Creighton University, 1911; B.S., Omaha, 1919; M.D., Nebraska, 1921. Instructor in Oral Surgery, University of Nebraska, 1921–24; F.A.C.D., F.A.C.S., Graduate Work in Plastic Surgery in European Clinics, 1924–26. At Stanford since 1928.

[†Davis, Joseph Stancliffe 691 Mirada* (PA 6265)
Director, Food Research Institute]

A.B., Harvard, 1908, Ph.D., 1913. Instructor in Economics and Sociology, Bowdoin College, 1912–13; Instructor in Economics, Harvard University, 1913–17; Tutor in the Division of History, Government, and Economics, Harvard University, 1914–20; Assistant Professor of Economics, Harvard University, 1917–21; Assistant Statistician, American Shipping Mission, and Statistician of the Allied Maritime Transport Council, London, 1918–19. At Stanford since 1921.

†Davis, William Hawley (1234) 686 Lasuen (PA 5967)
Professor of English, and Editor of University Press

A.B., Harvard, 1905; A.M., Columbia, 1908. Instructor in Public Speaking, Harvard College, Summer Session, 1908, 1909, and first half-year 1908–9; Professor of English and Public Speaking, Potsdam (N.Y.) State Normal School, 1909; Assistant Professor of Public Speaking, University of Kansas, 1909–10; Instructor in Public Speaking, Columbia University, Summer Session, 1910–12; Professor of English and Public Speaking, Bowdoin College, 1910–25. At Stanford since 1924.

†Davis, William Morris (13) 1351 Byron, P-p (PA 7806)
Lecturer in Geology and Physical Sciences

S.B., Harvard, 1869, M.E., 1870; Hon. Ph.D., Griefswald, 1903, Christiania, 1908; Hon. S.D., Cape of Good Hope, 1905, Melbourne, 1914. Assistant in Geology, Harvard, 1876, Instructor, 1879–84, Assistant Professor of Physical Geography, 1884–89, Professor, 1889–99, Sturgis Hooper Professor of Geology, 1899–1912, Professor of Geology, Emeritus, since 1912; Visiting Professor, University of Berlin, 1908–9, University of Paris, 1911–12; Lecturer, State University of Texas, 1926, University of California, 1927, 1928, University of Arizona, 1927–30.

Deichmann, Elisabeth (4) 165 Carmel, Pacific Grove-pg
Acting Instructor in Zoölogy (Hopkins Marine Station)

M.Sc., University of Copenhagen, 1922; Ph.D., Radcliffe, 1927. Alexander Agassiz Fellow, Harvard, 1928–30; Assistant Curator of Invertebrates, Museum of Comparative Zoölogy, Harvard, 1930–31.

Dickey, Lloyd Blackwell (1234) 770 Summit, Mill Valley-mv
Associate Professor of Pediatrics [(MV 1138)

A.B., Fargo College, 1915; A.M., Illinois, 1917; B.S., Minnesota, 1921, M.B., 1922, M.D., 1923. Assistant in Zoölogy, University of Illinois, 1915–18; Instructor in Anatomy, University of Minnesota, 1919–21; Assistant, Puget Sound Marine Biological Station, 1921; Assistant in Medicine, University of Minnesota, 1922; Interne, State Hospital for Crippled Children, St. Paul (Minn.); Junior Interne, Lane Hospital, 1923–24, Senior Interne and Assistant in Pediatrics, 1924–25, Resident, 1925–26; Visiting Pediatrician in Tuberculosis, San Francisco Hospital, since 1927. At Stanford since 1923.

†Dickson, Ernest Charles (123) 155 San Fernando Way, SF-sf
Professor of Public Health and Preventive Medicine [(Lockhaven 4298)

A.B., Toronto, 1904, M.B., 1906, M.D., 1917. Assistant Demonstrator in Physiology, University of Toronto, 1904–5; George Brown Research Scholar, Toronto, 1906–7; Assistant Resident Physician, Johns Hopkins Hospital, 1907–8; Instructor in Pathology and Bacteriology, Cooper Medical College, 1908–10; Assistant Professor of Pathology, Stanford, 1910–13, Assistant Professor of Medicine, 1913–18, Associate Professor, 1918–23, Professor, 1923–26, Professor, Public Health and Preventive Medicine, since 1926; Captain, Canadian A.M.C., 1918–19. At Stanford since 1910.

†Dillon, James Root (1234) 2670 Greenwich, SF-sf (Fillmore 3071)
Associate Clinical Professor of Surgery (Genito-Urinary)

A.B., Stanford, 1908; M.D., Cooper Medical College, 1912. Assistant in Medicine (Neurology), Stanford, 1913–14, Assistant in Surgery (Genito-Urinary) since 1915, Acting Head, Division of Urology, since 1925; Assistant Visiting Surgeon (Genito-Urinary), San Francisco Hospital, since 1917. At Stanford since 1913.

†Doane, Rennie Wilbur (123) 762 Dolores (PA 7363)
Professor of Zoölogy

A.B., Stanford, 1896. Assistant in Zoölogy and Botany, Washington State College, 1896–99, Assistant Professor of Zoölogy and Entomology, 1899–1901; Superintendent, Fisheries Experiment Station, Keyport (Wash.), 1901–3. At Stanford since 1905.

†Dock, George (123) 94 N. Madison, Pasadena-p (Colorado 2678)
Lecturer in Tropical Medicine

M.D., Pennsylvania, 1884; A.M. (honorary), Harvard, 1895; Sc.D. (honorary), Pennsylvania, 1904. Interne, St. Mary's Hospital, Philadelphia, 1884–85; Assistant in Clinical Pathology and Physician to Medical Dispensary, University of Pennsylvania, 1887–88; Professor of Pathology and Clinical Medicine, Texas Medical College and Hospital, 1888–91; Professor of Medicine, University of Michigan, 1891–1908; Professor of Medicine, Tulane University, 1908–10; Professor of Medicine, Washington University, St. Louis, 1910–22.

†Dock, William (1234) 2834 Divisadero, SF-sf (West 4959)
Associate Professor of Medicine

B.S., Washington University, 1920; M.D., Rush Medical College, 1922. Medical House Officer, Peter Bent Brigham Hospital, Boston, 1922–23, Assistant Resident

Physician, 1923–24; Graduate Student, First Medical Clinic, Vienna, 1924–25; Medical Resident, Lane and Stanford Hospitals, 1925–26. At Stanford since 1926.

†Domonoske, Arthur Boquer (123) 676 Lasuen (PA 5971)
Professor of Mechanical Engineering

B.S., California, 1907, M.S., 1909. Practical experience with Westinghouse Electric and Manufacturing Company, Deere and Company, C. L. Best, etc.; Instructor, University of California, 1907–10, 1911–13; Instructor, University of Illinois, 1913–15; with Holt Manufacturing Company, 1915–16; U.S.S. Board School, 1918; Assistant Professor of Mechanical Engineering, University of California, 1919–22; Chief Engineer, Doble Steam Motors Company, 1922–23; Associate Professor of Experimental Engineering, and Director of the Shops, University of California, 1923–26. At Stanford since 1926.

Donnay, Joseph Désiré Hubert (123) 728 Waverley, P-*2393* (PA 5993)
Research Associate in Geology

Candidat Ingénieur, Liège, 1922, Ingénieur Civil des Mines, 1925; Ph.D., Stanford, 1929. Fellow, C.R.B. Educational Foundation, Geology, Stanford, 1925–26, 1928–29; Assistant, Stanford Geological Survey, Summer Quarter, 1928; Engineer and Geologist, Syndicat des Pétroles au Maroc, October 1929–April 1930; Teaching Fellow in Mineralogy, Stanford, 1930–31. At Stanford since 1930.

†Dowrie, George William (123) 421 El Escarpado (PA 4878)
Professor of Finance (Graduate School of Business)

A.B., Lake Forest, 1901; A.M., Chicago, 1907; Ph.D., Illinois, 1913. Fellow in Economics, University of Illinois, 1910–11, Assistant in Economics, 1911–13; Assistant Professor of Finance, University of Michigan, 1913–16, Associate Professor, 1916–17, Professor, 1917–18; Member of Staff, Guaranty Trust Company of New York, 1918; Professor of Finance, University of Minnesota, 1918-19, Dean of the School of Business, and Head of the Department of Economics, 1919–26; Professor of Economics, University of California, Summer Sessions, 1924, 1929. At Stanford since 1926.

Doyle, Anastasia (1234) Roble-*1772*
Director of Roble Hall, and Acting Assistant Professor of Education (Summer Quarter)

A.B., Minnesota, 1908; A.M., Columbia, 1927. Teacher of History, Humboldt High School and Mechanics High School, St. Paul (Minn.), 1910–27; Assistant to Dean of Women, New Jersey College for Women, 1927–30.

DuBois, Robert (123) 129 Emerson, P* (PA 5654)
Instructor in Chemistry

A.B., Carleton College, 1918; M.S., Oklahoma Agricultural and Mechanical College, 1919; Ph.D., Stanford, 1929. Assistant Professor of Chemistry, Oklahoma Agricultural and Mechanical College, 1919–22, Associate Professor, 1922–25; Assistant Professor of Chemistry, Oklahoma City University, 1925-26; Teaching Fellow, Stanford, 1926–27, University Fellow, 1927–29. At Stanford since 1929.

†DuMond, Jesse William Monroe (2) 662 Mirada* (PA 8219)
Acting Associate Professor of Physics

B.S. in Electrical Engineering, Throop College of Technology, 1916; M.S., Union College, 1918; Ph.D., California Institute of Technology, 1929. Electrical Engineer, Consulting Engineering Laboratory, General Electric Company, 1917–18; Computer and Observer, Sound Ranging Service, 29th Regiment Engineers, A.E.F., 1918–19; Electrical Engineer, French Thompson Houston Company, Paris, 1919–20; Assistant Electrical Engineer, Bureau of Standards, Washington (D.C.), 1920–21; Teaching Fellow in Physics, California Institute of Technology, 1923–25, Research Fellow in Physics, since 1927.

†Duncan, William Bryan (123) 611 Coronado (PA 21108)
Assistant Professor of Electrical Engineering

A.B., Stanford, 1925, Engineer, 1926. At Stanford since 1927.

†Dunn, Theodore Saunders (23) 441 Foothill* (PA 21135)
Acting Associate Professor of Mining Engineering

B.S., Missouri School of Mines, 1910, M.S., 1914; E.M., 1916. With Savannah Copper Company, Anaconda Copper Company, Barstow Gold Mining Company, 1910–13; Graduate Instructor in Metallurgy, Missouri School of Mines, 1913–14; Professor of Mining, South Dakota School of Mines, 1914–16; Safety Engineer and Inspector, The Associated Companies, 1916–17; Captain, Engineers, U.S. Army, 1917–19; Associate Professor of Geology and Metallurgy, Georgia School of Technology, 1920–21, Professor, 1921–30; Consulting Engineer and Chief Mining Engineer, Chromium and Aluminum Corporation, 1929–30.

†Duveneck, Frank B. (123) Los Altos* (LA 295J)
Research Associate in Physics

M.M.E., Harvard, 1910. At Stanford since 1930.

Dyment, Bertha Sabin Stuart (Mrs.) (1234) 574 Foothill-*2238*
Medical Adviser of Women, and Director of Physical Education for Women [(PA 3459)

A.B., Michigan, 1903, M.D., 1908. Assistant Director of Physical Education for Women, University of Michigan, 1902–7, Director, 1907–9; Director of Physical Education for Women and Medical Adviser, University of Oregon, 1909–15; Instructor, Summer School, University of Utah, 1912; Instructor, University of California, Summer Sessions, 1912, 1914; Director of Physical Education for Women and Medical Adviser, Reed College, 1915–20; Overseas, American Red Cross, December 1917–January 1918; Head of Reconstruction Clinic, Portland, April–September 1919; Medical Adviser for Women, University of Oregon, 1920–26; Pediatrician, Eugene Hospital, 1926–27; Clinical work for California State Board of Health and Alameda County Health Association, 1927–28. At Stanford since 1929.

Eberhard, Clara (123) 575 Grant, Santa Clara* (SC 549J)
Instructor in German

A.B., Stanford, 1897, A.M., 1923. At Stanford since 1923.

†Eells, Walter Crosby (1234) 735 Dolores (PA 7176)
Associate Professor of Education

A.B., Whitman College, 1908; A.M., Chicago, 1911; Ph.D., Stanford, 1927. Professor of Mathematics, Whitworth College, 1911–14; Instructor in Mathematics, U.S. Naval Academy, 1914–16; Instructor in Surveying, Harvard Engineering Camp, Summer Quarter, 1916; Professor of Applied Mathematics, Whitman College, 1916–26, Professor of Education, 1926–27; Acting Associate Professor of Education, Stanford, Summer Quarters, 1926, 1927; Editor, *Junior College Journal.* At Stanford since 1927.

†Ellington, Will Boyd (123) 587 Alvarado* (PA 3768)
Associate Director, School of Hygiene and Physical Education

A.B., Stanford, 1927. At Stanford since 1927.

Eloesser, Leo (123) 2152 Leavenworth, SF-sf (Graystone 5643)
Clinical Professor of Surgery

B.S., University of California, 1900; M.D., Heidelberg, 1907. Volunteer Assistant, Surgical Clinic, Heidelberg, 1906; Assistant, Cancer Institute, Heidelberg, 1906–7; Volunteer Assistant, Royal Surgical Clinic, Kiel, 1908–9; Volunteer Assistant, Augusta Hospital, Berlin, 1909; Assistant in Surgery, University of California, 1910–12; Surgeon to Reserve Hospital, Ettlingen, and Reserve Hospital III, IV, V, Karlsruhe, 1915–16; Major, M.C., U.S.A., November 1918 to November 1919. At Stanford since 1913.

†Ely, Leonard W. (1234) 2161 Bryant, P-p (PA 7810)
Professor of Surgery (Orthopedics)

A.B., Columbia, 1889; M.D., College of Physicians and Surgeons, Columbia University, 1895. Captain, M.C., U.S.A., September 1917 to February 1919. At Stanford since 1913.

†Emerson, James Gordon (1234) 636 Alvarado (PA 7490)
Associate Professor of English (Public Speaking)

B.S., Iowa State College, 1912; J.D., Stanford, 1915. Student, Harvard Law School, 1912-13, University of California Law School, Summer Session, 1914; Instructor in Public Speaking, Kansas State Agricultural College, 1915–16, Assistant Professor, 1916–17, Professor and Department Head, 1917–21. At Stanford since 1921.

†Emge, Ludwig Augustus (1234) 109 Edgewood, SF-sf
Associate Clinical Professor of [(Lockhaven 4849)
Obstetrics and Gynecology

B.S., Chicago, 1912; M.D., Rush Medical College, 1914. Assistant in Anatomy, University of Chicago, 1912–13; Special Worker in Pathology, Rush Medical College, 1913–14; Interne, Durant and Presbyterian Hospitals, Chicago, 1914–15; Resident and Assistant in Gynecology and Obstetrics, University of California Hospital, 1915–17. At Stanford since 1917.

†Emmet, Boris (123) 765 Forest, P* (PA 4744)
Professor of Business Management (Graduate School of Business)

A.B., University of Wisconsin, 1913, A.M., 1914; Ph.D., Johns Hopkins, 1917. Field Expert, U.S. Commission on Industrial Relations, 1914; Statistical Expert and Economist, U.S. Department of Labor, 1915–17; Lecturer on Industrial Relations, University of Washington, 1918; Director of Labor, New York Dress and Waist Manufacturers' Association, 1919; Director of Labor and of Clothiers' Research Bureau, Baltimore Market, Men's Clothing Industry, 1920; Lecturer on Factory Management, Johns Hopkins University, 1922; Field Staff, U.S. Coal Commission, 1923; Labor Manager, Henry Sonneborn Company, Baltimore (Md.), 1921–23, Production Manager, 1924, Works Manager, 1925–27; Treasurer, B. F. Schlesinger and Sons, Inc., San Francisco, 1928–29. At Stanford since 1927.

†Empey, Lucas Wistar (1234) 206 Medico-Dental Bldg., SJ-sj
Clinical Instructor in Pediatrics [(Columbia 2680)

A.B., Stanford, 1924, M.D., 1928. Interne on Pediatrics Service, University of Rochester, Strong Memorial Hospital, Rochester (N.Y.), 1928–29. At Stanford since 1929.

†Erwin, Ernest S. (1234) 707 Salvatierra* (PA 21181)
Assistant Comptroller

At Stanford since 1919.

†Espinosa, Aurelio Macedonio (123) 632 Foothill-*1555* (PA 21645)
Professor of Romanic Languages

A.B., Colorado, 1902, A.M., 1904; Ph.D., Chicago, 1909; Litt.D. (Honoris causa), St. Ignatius College, 1930. Assistant in Romance Languages, University of Colorado, 1901–2, Instructor, Summer Terms, 1904, 1905; Professor of Romance Languages, University of New Mexico, 1902–10; Fellow in Romance Languages and Instructor in Spanish, University of Chicago, 1908–9; Visiting Professor, Summer Sessions, University of Chicago, 1914, University of California, 1912, 1915, 1922, 1925; Associate Editor, *Journal of American Folklore*, since 1914; Editor, *Hispania*, 1917–26; Associate Editor, *Language*, since 1925; Corresponding Member of the Royal Spanish Academy, 1921; Corresponding Member of the Real Academia Hispano-Americana de Ciencias y Artes, 1921; Comendador con Placa de la Real Orden de Isabel la Católica, 1922; President, American Folklore Society, 1924, 1925; President, American Association of Teachers of Spanish, 1928; President, Pacific Coast Branch of American Philological Association, 1929. At Stanford since 1910.

Evermann, Barton Warren (123) 2715 Woolsey, Berkeley-b
Lecturer in Zoölogy [(Olympic 1400)

B.S., Indiana, 1886, A.M., 1888, Ph.D., 1891, LL.D., 1928; LL.D., University of Utah, 1922. Professor of Biology, Indiana State Normal School, 1886–91; Ichthyologist, U.S. Fish Commission, 1891–1903; Chief, Division of Statistics and Methods, 1903–4; Chief, Division of Scientific Inquiry, 1904–10; Chief, Alaska Fisheries Service, 1910–14; Member, International Fur Seal Commission, 1892; Vice-President, Board of Education, District of Columbia, 1906–10; Member, International Fisheries Commission, 1908–9; Lecturer, Stanford, 1893–94, Cornell, 1900–1903,

Yale, 1903–6; Director of Museum, California Academy of Sciences, since 1914, Director of Steinhart Aquarium, since 1922; Chairman, Section on Scientific Research, Commonwealth Club of California, 1917–29; Member, Game Refuge and Public Shooting Grounds, State Advisory Committee, since 1928.

†FABER, HAROLD KNIEST (1234) 2080 Vallejo, SF-sf (Fillmore 3848)
Professor of Pediatrics

A.B., Harvard, 1906; M.D., Michigan, 1911. Medical Interne, New York Hospital, 1911–13; Resident Pathologist, Babies' Hospital, New York, 1913–14; Fellow, Rockefeller Institute, New York, 1914–15; Captain, M.C., U.S.A., February 1918 to August 1919. At Stanford since 1915.

†FAGAN, ELMER DANIEL (123) 519 Tennyson, P-p (PA 6297)
Associate Professor of Economics

A.B., Oklahoma, 1920; A.M., Harvard, 1921, Ph.D., 1926. Instructor in Economics, University of Southern California, 1921–22, Assistant Professor, 1923–24, Associate Professor, 1925–26, Professor, 1927–28; Visiting Professor of Economics, University of Virginia, Summer Quarters, 1928, 1929. At Stanford since 1928.

†FARMER, EDWARD MCNEIL (234) 240 Fulton, P-p (PA 7308)
Instructor in Education (Graphic Art)

A.B., Stanford, 1923, A.M., 1926. Student, Art Students League, June–December 1929. At Stanford since 1923.

†FARNSWORTH, PAUL RANDOLPH (123) 715 Salvatierra (PA 8155)
Assistant Professor of Psychology

A.B., Ohio State University, 1921, A.M., 1923, Ph.D., 1925. Assistant in Psychology, Ohio State, 1920–22, Instructor, 1922–24; Student, University of Missouri, Summer, 1923; University Fellow, Ohio State, 1924–25. At Stanford since 1925.

FAST, LISETTE EMERY (1234) 345 Forest, P-*1438* (PA 21358)
Secretary, Citizenship, and Independent Study Plan Committee

A.B., Stanford, 1919; M.B.A., University of Washington, 1921. Research Assistant, Food Research Institute, Stanford, 1922–23. At Stanford, 1922–27, and since 1928.

FAYLE, JANE (1234) 371 Lytton, P-*3006* (PA 6602)
Secretary to Dr. Storey

At Stanford since 1927.

FEARING, FLORA MAY (Mrs.) (4) 708 Salvatierra
Acting Instructor in Political Science (Public Health Administration)

A.B., Stanford, 1917, A.M., 1918. Instructor in Political Science, Vassar College, 1918–19; Supervisor, Neuro-Psychiatric Cases, American Red Cross, Louisville (Ky.), 1920; Director, Psychiatric Social Investigation, Cincinnati Mental Hygiene Survey, National Committee for Mental Hygiene, 1921; Acting Instructor in Political Science, Stanford, Spring Quarter, 1921–22; Lecturer in Economics and Sociology, Mills College, 1922–23; Instructor in Citizenship, Stanford, 1923–26; Instructor in Political Science, Ohio State University, 1926–28; Research Associate, Northwestern University, since 1928.

FENNER, WILMA EDA (4) 1010 Forest Ct., P* (PA 7287)
Acting Instructor in Physical Education for Women

A.B., Stanford, 1927, A.M., 1928. Acting Instructor in Physical Education, Stanford, Summer Quarters, 1928–30; Instructor in Ancient Languages, University of Utah, since 1928.

†FENTON, NORMAN (4) Menlo Heights-*1607* (PA 6880)
Acting Professor of Education

B.S., A.M., Harvard, 1917; Ph.D., Stanford, 1925. Psychologist, Boston Psychopathic Hospital, 1917; Psychologist, Base Hospital 117, A.E.F., 1918; Psychologist, National Committee for Mental Hygiene, 1919–20; Instructor, Menlo School, 1921–22; Professor of Education, Tempe (Ariz.) State Teachers College, 1922–26; Associate Professor of Psychology, Ohio University, 1926–28; Director of California Bureau of Juvenile Research and Editor, *Journal of Juvenile Research*, since 1928; Professor of Education, University of Southern California, since 1929.

[†Ferris, Gordon Floyd 735 Guinda, P*
Associate Professor of Zoölogy]

A.B., Stanford, 1916, A.M., 1918. Fellow of the Guggenheim Memorial Foundation (traveling in Mexico), 1925–26; Instructor, Deep Springs School, Autumn, 1928. At Stanford since 1916.

Ferris, Roxana Stinchfield (Mrs.) (1) 735 Guinda, P*
Assistant Curator, Dudley Herbarium

A.B., Stanford, 1915. At Stanford since 1916.

†Field, John, II (1234) 607 Lasuen* (PA 8191)
Assistant Professor of Physiology

A.B., Stanford, 1923, A.M., 1924, Ph.D., 1928. Assistant in Chemistry, Stanford, 1923–24, Food Research Fellow, 1924–25. At Stanford since 1923.

†Finch, Floyd (123) 820 Cowper, P-p (PA 21270)
Acting Instructor in Hygiene and Physical Education

†Fish, John Charles Lounsbury (123) 308 Lincoln, P* (PA 7124)
Professor of Civil Engineering

C.E., Cornell, 1892. Instructor in Civil Engineering, Cornell University, 1892–93; Division Engineer, Lake Shore & Michigan Southern Railway (New York Central Line West), 1906–8. At Stanford since 1893.

†Fisher, Arthur Lawrence (123) 3333 Jackson, SF-sf (Fillmore 3620)
Associate Clinical Professor of Surgery (Orthopedics)

B.S., California, 1896; M.D., Johns Hopkins, 1900. Resident House Officer, Johns Hopkins Hospital, 1900–1901; Fellow, Rockefeller Institute for Medical Research, 1901–2; Assistant Visiting Surgeon, Mount Zion Hospital, San Francisco, 1902–7; Assistant in Surgery, Lane Hospital, 1907–12; Assistant in Orthopedics, Stanford Medical School, 1912–16; Instructor in Orthopedic Surgery, University of California, 1916–19. At Stanford, 1912–16, and since 1920.

†Fisher, Harold Henry (123) 473 Embarcadero, P* (PA 6450)
Lecturer in History

A.B., Vermont, 1911. Master, The Black Hall School, 1912, Mercersburg Academy, 1912–14, The Hill School, 1914–17; Student, Summer Sessions, Columbia University, 1914, Dartmouth College, 1916; First Lieutenant, Field Artillery, 1917, Captain (A.E.F.), 1918–19; on staff of *New Republic* and *Washington* (D.C.) *Herald*, 1919–20; with American Relief Administration since 1920, Chief of Department of History and Publications, 1921–24, Curator of Archives, 1924. At Stanford since 1924.

†Fisher, Walter Kenrick (234) 844 Laurel, Pacific Grove*
Professor of Zoölogy, and Director of Hopkins Marine Station [(Monterey 407W)

A.B., Stanford, 1901, A.M., 1903, Ph.D., 1906. Assistant, U.S. Biological Survey, 1897–1901, 1903; Assistant, U.S. Fish Commission, 1902, 1904. At Stanford since 1902.

†Fletcher, Harold Augustus (123) 12 West Clay Park, SF-sf
Assistant Clinical Professor of Surgery (Otology, Rhinology, Laryngology) [(Evergreen 7230)

B.S., California, 1912; M.D., Stanford, 1916. Interne, Lane Hospital, 1916–17; M.R.C., U.S.A., 1917–19. At Stanford since 1919.

†Fluhmann, C. Frederic (1234) 2725 Filbert, SF-sf (Walnut 0652)
Associate Professor of Obstetrics and Gynecology

B.A., University of Bishop's College, 1917; M.D., C.M., McGill, 1922. Junior Interne, Montreal General Hospital, 1922–23, Senior Interne, Gynecology, 1923–24; Johns Hopkins Hospital, Obstetrics, 1924–25. At Stanford since 1926.

Fordyce, Elizabeth L. (1234) 583 Alvarado* (PA 5486)
Assistant Secretary to the President

B.S., Mills, 1916. At Stanford since 1920.

FOSTER, BENJAMIN OLIVER (123) 574 Lasuen-*946* (PA 5752)
Professor of Classical Literature

A.B., Stanford, 1895; A.M., Harvard, 1897, Ph.D., 1899. Parker Fellow of Harvard University, studying in the American School of Classical Studies in Rome, 1899–1900; Acting Professor of Latin and Greek, State Normal College of Michigan, 1900–1901; Assistant Professor of Latin, University of California, Summer Session, 1908, Associate Professor, 1923; Visiting Professor of Latin, University of Chicago, Autumn and Winter Quarters, 1925–26, Summer Quarter, 1928. At Stanford since 1901.

FREYRE, GILBERTO DE MELLO (3) 582 Alvarado* (PA 21528)
Lecturer in History

A.B., Baylor, 1920; A.M., Columbia, 1921. Graduate work, Columbia, 1922; Research work, Lima's Brasiliana and Library of Congress, Washington, 1926; Research work, Library of Instituto Historico Geographico Brasileiro, Rio, 1927; Research work, Bibliotheca Nacional, Lisbon, 1930; Professor of Sociology and Social History of Brazil, Escola Normal de Estado, Pernambuco, Brazil.

†FRIEND, WILL A. (1234) 1026 Forest Court, P-*3001* (PA 7757)
Manager of the University Press

At Stanford since 1920.

†GARDNER, DAVID CHARLES (123) 514 Alvarado-*26* (PA 3529)
Chaplain, and Lecturer on Biblical History and Literature

Graduate, Church Divinity School of the Pacific, 1897, D.D., 1920. Curate, St. James Mission, San Francisco, 1898; Rector of All Saints Church, Palo Alto, 1898–1902. At Stanford since 1902.

†GARLAND, LEO HENRY (123) 2853 Green, SF-sf (Fillmore 5112)
Clinical Instructor in Medicine (Radiology)

M.B., B.Ch., B.A.O., University College (Dublin, Ireland), 1924, M.D., 1925. Resident in Roentgenology, Lane Hospital, 1926–27; Roentgenologist in charge, St. Mary's Hospital, San Francisco, 1927–29; Visiting Roentgenologist to Laguna Honda Home, since 1928, and to San Francisco Hospital, since 1929. At Stanford, 1926–27, and since 1928.

GIANINI, LEO GREGORY (123) 534A Sixth Ave., SF-sf (Skyline 0336)
Lecturer in Electrical Engineering

A.B., Stanford, 1921.

†GIBBONS, MORTON RAYMOND (123) 3979 Washington, SF-sf
Lecturer on Medical Aspects of Insurance [(Bayview 1913)

M.D., Cooper Medical College, 1897. Instructor in Clinical Medicine, Cooper Medical College, 1904–9; Medical Director, Industrial Accident Commission of California, since 1914; Captain and Major, U.S.R., 1917–19; C.O., Base Hospital, Camp Pike, 1918–19. At Stanford, 1909–16, and since 1919.

GIBSON, ETTA (1234) Menlo Heights* (PA 6042)
Recording Secretary, Registrar's Office

At Stanford since 1925.

†GIESE, ARTHUR CHARLES (123) 525 Bowdoin, P-Station A, p
Acting Instructor in Biology

B.S., University of Chicago, 1927. Teaching Fellow in Zoölogy, University of California, 1928–29; Teaching Assistant in Biology, Stanford, 1929–30.

†GILKEY, WALLACE ALFRED (4) Menlo Heights
Research Associate, Chemistry

A.B., Stanford, 1922, Engineer, 1923, Ph.D., 1929. Industrial Chemical Engineer, two years; Teacher of Chemistry, San Diego State Teachers College, 1925–28; Sacramento Junior College, since 1929.

†Gilman, Philip Kingsnorth (123) 1803 Broadway, SF-sf
Clinical Professor of Surgery [(Ordway 4578)

A.B., Stanford, 1901; M.D., Johns Hopkins, 1905. Assistant Resident Surgeon, Johns Hopkins Hospital, 1905–7; Assistant Professor of Pathology, Philippine Medical School, 1907–8; Assistant Professor of Surgery, College of Medicine and Surgery, University of the Philippines, 1908–12, Professor of Surgery and Chief of Department, 1912–16; Chief Surgeon, Philippine General Hospital, 1912–16; Lieutenant, M.C., U.S.N.R.F., December 1917 to February 1919; Lieutenant Commander, 1925. At Stanford since 1916.

†Glenn, Garrard (4) 1215 Emerson, P* (PA 8519)
Acting Professor of Law

A.B., University of Georgia, 1899; LL.B., Columbia University, 1903. Special Lecturer and afterward Associate Professor of Law, Columbia University (part time), 1913–20; Professor of Law, University of Virginia, since 1929.

†Gold, Julius (4) 1101 Green, SF-sf (Prospect 3410)
Lecturer in Education

Student of Violin with Sir Henry Heyman and Henry Holmes, San Francisco, 1898–1903, and with Bernard Listemann and Emil Sauret, Chicago Musical College, 1904–7; Student of Harmony and Theory of Music with Bernhard Ziehn, Chicago, 1905–10; Professor of Musical Science, Drake University, 1910–14; Member of San Francisco Symphony Orchestra, since 1916.

†Golovine, Nicolas N. (4) 215 Stanford Union-*1741* (PA 3121)
Research Associate, Russian Revolution Institute
(Hoover War Library)

A.B., Petrograd, 1894, A.M., 1900; Doctor of Military Science and History, Imperial Army War College, Petrograd, 1907. Assistant Professor, Imperial Army War College, 1907–10, Professor, 1910–13; Lecturer in History of the Great War, Institute of Slavonic Studies, University of Paris, 1922–31; Lecturer, French Army War College, 1925–31; Lecturer, Army War College, Washington, D.C., 1930–31; Research Scholar, University of Prague, 1921. At Stanford since 1931.

†Gordan, Richard A. (123) 159 Churchill, P* (PA 5760)
Associate Professor of Military Science and Tactics

Graduate, Field Artillery School, Fort Sill (Okla.), 1922; Graduate, French Cavalry School, Saumur (France), 1923. Instructor, Field Artillery School, Fort Sill (Okla.), 1924–28; Captain, Field Artillery, U.S. Army. At Stanford since 1928.

†Gorham, Curtis Byron (123) 2309 Sacramento, SF-sf (Fillmore 4645)
Instructor in Surgery (Oto-Rhino-Laryngology)

A.B., Stanford, 1924, M.D., 1928. Assistant Resident, Otorhinolaryngology, Stanford, 1928–29, Resident, and Assistant in Instruction and Research, 1929–30. At Stanford since 1928.

Graham, Harrington Bidwell (123) Bohemian Club, SF-sf
Associate Clinical Professor of Surgery (Otology, Rhinology, and Laryngology) [(Franklin 2441)

B.S., California, 1896, M.D., 1899. Superintendent of Waldeck Sanitarium, 1899; Assistant in Surgery, San Francisco Polyclinic, 1904; Assistant, Ear, Nose, and Throat Clinic, Cooper Medical College, 1910–11; Lieutenant, U.S.N.R.F., September 1918 to February 1919; Chief, E.N.T. Department, Southern Pacific Railway. At Stanford since 1912.

Grant, Clellah Peel (4) 2340 Clay, SF-sf (West 8000)
Instructor in Practice of Nursing

B.S., Hastings College, 1928; R.N., Mary Lanning Memorial Hospital School of Nursing, Hastings (Neb.), 1927. Graduate Study, University of California at Los Angeles, 1930; Assistant Instructor, Mary Lanning Memorial Hospital, 1928; Instructor, Methodist Hospital, Omaha (Neb.), 1928–30. At Stanford since 1931.

†Grant, Eugene Lodewick (123) 1325 College, P* (PA 7635)
Associate Professor of Civil Engineering

B.S., Wisconsin, 1917, C.E., 1928; A.M., Columbia, 1928. With U.S. Geological Survey, 1917, 1919, and summers, 1921, 1922, 1924; Instructor in Navigation, U.S.N.R.F., Officers' Training School, 1918; with Commonwealth Edison Company and Public Service Company of Northern Illinois, in Statistical, Auditing, and Industrial Relations Departments, 1923–24; Sanitary Engineer, Montana State Board of Health, 1927; Instructor in Civil Engineering, Montana State College, 1920, Assistant Professor, 1920–23, 1924–27, Associate Professor, 1928–29, Professor of Industrial Engineering, 1929–30. At Stanford since 1930.

†Gray, Henry David (123) 513 Salvatierra-*2774* (PA 8953)
Professor of English

Ph.B., Colgate, 1897; A.M., Columbia, 1898, Ph.D., 1904; Litt.D., Colgate, 1919. Assistant in German and French, Colgate Academy, 1896–97; University Scholar, Columbia University, 1898–1900; Instructor in Dramatic Literature, American Academy of Dramatic Arts, 1900–1902; Instructor in English, University of Texas, 1902–5; Lecturer in English, Columbia University, Summer Session, 1905, University of Oregon, Summer Session, 1910, University of Illinois, Summer Session, 1912, University of Iowa, Summer Session, 1922, University College, University of London, Michaelmas Term, 1922, Brigham Young University, Summer Session, 1925; Professor of English and Dean of the Faculty, Floating University, 1928–29; Director, American University Union, British Division, 1929 30. At Stanford since 1905.

†Gray, Horace (1234) 1925 Gough, SF-sf (Ordway 4623)
Associate Clinical Professor of Medicine

A.B., Harvard, 1909, M.D., 1914. Voluntary Assistant, Johns Hopkins Hospital, 1916; Research Worker, Institute for Juvenile Research, Chicago, 1926–29. At Stanford since 1929.

†Green, Boynton Morris (123) 691 Salvatierra* (PA 7469)
Associate Professor of Mechanical Engineering

A.B., Stanford, 1914, Engineer, 1916. Student Engineer, H. Koppers Company, Pittsburgh (Pa.), 1916; Draftsman and Construction Engineer, Federal Telegraph Company, 1917, 1919–21. At Stanford 1920, and since 1921.

†Green, George Leroy (4) 455 Williams, P-p (PA 8173)
Acting Instructor in Geology

A.B., Oklahoma, 1917. Field Assistant, Engineering Department, Oklahoma, 1916–17; Reconnaissance Geology, United States and Mexico, 1917–23; Oilfield Superintendent, Mexico, 1923–24; Reconnaissance Geology, Mexico, South America, and Central America, 1924–30.

†Grégoire, Henri (4) 587 Alvarado-*1035* (PA 3768)
Acting Professor of History and Classical Literature

Dr. Phil., Liège, 1902. Member, French School of Archaeology, Athens, 1906–9; Charge de cours of Greek Philology, University of Brussels, 1909, Professor of Greek Literature, Byzantine History and Philology, since 1913, Dean of Faculty of Arts, since 1929; Dean of the Faculty of Arts, Egyptian University, Cairo, 1925–28; Corresponding Member of the Académie Royale de Belgique; Auswärtiges Mitglied of the Austrian Archaeological Institute, Vienna; Honorary Member of the Society for Byzantine Studies, Athens.

Griffing, Elizabeth Perry (Mrs.) (1234) 792 Santa Maria (PA 7836)
Junior Research Associate, Food Research Institute

B.S., Simmons, 1914; A.M., Stanford, 1920. At Stanford since 1920.

†Guérard, Albert Léon (123) 635 Gerona-*1663* (PA 7844)
Professor of General Literature

A.B., Classical, University of Paris, 1898, A.B., Modern, 1899, Agrégé d'Anglais, 1906. Junior Professor of French Literature and Examiner in History, State Normal School, Paris, 1904–6; Professor of English, École des Hautes Études Commerciales, Paris, 1904–6; Instructor in French, Williams College (Mass.), 1906–7; Assistant

Professor of French, Stanford, 1906–13, Associate Professor, 1913; Professor of French Civilization and Head of Romance Language Department, Rice Institute, 1913–24; Professor of French and Chairman of French Department, University of California, Southern Branch, 1924–25; Professor of French, University of Chicago, Summer, 1916, 1920, University of California, Southern Branch, Summer, 1921, 1922, 1926, University of Wisconsin, Summer, 1923. At Stanford, 1906–13, and since 1925.

†Gullikson, Albert Clarence (123) 1904 University, P-*10* (PA 7398)
Assistant Professor of Mechanical Engineering

B.S., University of Washington, 1924. Apprentice, Machinist, and Draftsman with several firms in the Northwest, 1915–24; Instructor and Head of the Department of Industrial Arts, Highline High School, Seattle (Wash.), 1924–27; Instructor in Mechanical Engineering, University of Cincinnati, 1927–28. At Stanford since 1928.

†Gunn, Herbert (123) 163 Twenty-sixth Ave., SF-sf (Evergreen 4619)
Lecturer in Tropical Medicine

M.D., Cooper Medical College, 1895.

†Haas, Sylvan Lewis (123) 579 Eleventh Ave., SF-sf (Skyline 8713)
Assistant Clinical Professor of Surgery

B.S., University of California, 1904; M.D., Johns Hopkins Medical School, 1908. Resident Pathologist, Lakeside Hospital, Cleveland (Ohio), 1908–9; Interne, Lane Hospital, 1909–10; Captain, M.C., U.S.A., 1917–20; Associate Chief Surgeon, Shriners' Hospital, San Francisco, since 1923, Acting Chief Surgeon, since July 1930. At Stanford 1912–18, and since 1923.

Hadden, Elizabeth (1234) 151 Kellogg, P-p (PA 21480)
Chief of Order Division, Library

At Stanford since 1901.

Haley, Bernard Francis (34) 638 Salvatierra (PA 8478)
Assistant Professor of Economics

A.B., Stanford, 1922, A.M., 1923; A.M., Harvard, 1926. Scholar in Economics, Harvard, 1923–24, Fellow, 1925–26. At Stanford, 1924–25, and since 1926.

†Hall, Harvey Monroe (123) 1301 Bryant, P* (PA 7983)
Acting Professor of Botany

B.S., California, 1901, M.S., 1902, Ph.D., 1906. Assistant in Botany, University of California, 1903, Instructor, 1903–8, Assistant Professor, 1908–16, Associate Professor, 1916–19; Assistant Botanist, Agricultural Experiment Station, California, 1902–19; Instructor in Botany, Mountain Laboratory, University of Colorado, 1917; Investigator in Experimental Taxonomy, Division of Plant Biology, Carnegie Institution of Washington, since 1919.

†Hall, Howard Judson (234) University Ave., Los Altos* (LA 171W)
Professor of English

B.S., Michigan State College, 1890; A.B., Stanford, 1896; A.M., Harvard, 1900. Professor of English, and Librarian, University of Arizona, 1891–1904; Instructor, Army Educational Corps, A.E.F., University, Beaune, Côte d'Or, France, 1919. At Stanford since 1904.

Hall, Victor Ernest (123) 735 Middlefield, P-p (PA 5240)
Assistant Professor of Biology (Physiology)

A.B., Stanford, 1922, A.M., 1925, M.D., 1928. At Stanford since 1925.

Hansen, Hazel Dorothy (123) 575 Salvatierra-*2442* (PA 6417)
Assistant Professor of Classical Literature

A.B., Stanford, 1920, A.M., 1921, Ph.D., 1926. Student, American School of Classical Studies, Athens (Greece), 1922–25, 1927–28, Fellow in the School, 1923–24, Holder of Alice Freeman Palmer Fellowship, 1927–28. At Stanford since 1928.

Hansen, William Webster (234) 315 Stanford Union *1272* (PA 3121)
Instructor in Physics

A.B., Stanford, 1929. At Stanford since 1929.

†Hanzlik, Paul John (1234) 819 Prospect Row, San Mateo-sm
Professor of Pharmacology [(SM 1117)

Ph.C., Iowa, 1908; A.B., Illinois, 1908, A.M., 1911; M.D., Western Reserve, 1912. Demonstrator in Pharmacology, Western Reserve University, 1912–13, Instructor, 1913–15, Associate, 1915–17, Assistant Professor, 1917–20, Associate Professor, 1920–21; Pharmacological Institute and Physico-Chemical-Biological Institute, University of Vienna, 1913–14; Pharmacologist, Bureau of Mines, Department of Interior, and Captain, M.C., U.S.A., 1918. Associate Editor, *Journal of Pharmacology and Experimental Therapeutics*, since 1921, and *Archives internationales de pharmacodynamie et de thérapie*, since 1928; Vice-Chairman, Council on Dental Therapeutics, American Dental Association, since 1929. At Stanford since 1921.

†Harcourt, Robert Henry (123) 918 Cowper, P-p (PA 3665)
Teaching Specialist in Forge Practice

Graduate, Santa Barbara State Normal School, 1917. Apprentice and Blacksmith with Risdon Iron Works, San Francisco, 1898–1901, 1903–4; with Hammond Car and Elevator Company, San Francisco, 1901–2, 1904–5; with National Iron Works, San Francisco, 1902–3; Toolman with Abner Doble Steel Company, San Francisco, 1905–6, Foreman of Forge Shop, 1906–7; Instructor in Machine Shop Practice, Forge Practice, and Sheet Metal Work, Santa Barbara State Normal School, Summer Sessions, 1919, 1922, 1923. At Stanford since 1907.

†Harding, Victor Hunt (3) 940 College, P-*2623* (PA 22528)
Acting Instructor in Citizenship

A.B., Stanford, 1925.

†Harriman, Raymond Davis (123) 530 Harvard, P-*1913* (PA 6974)
Associate Professor of Classical Literature

A.B., Grinnell College, 1909; A.M., Wisconsin, 1914, Ph.D., 1915. Fellow in Latin, University of Wisconsin, 1913–14, Assistant in Ancient History, 1914–15; Fellow in American Academy in Rome, 1915–16; Instructor in Ancient Languages, University of Utah, 1916–17, Assistant Professor, 1917–22, Associate Professor, 1922–28, Acting Dean of Men, 1926–28; Visiting Assistant Professor of Latin, University of Chicago, 1925–26, Visiting Associate Professor, Summer Quarter, 1927; Lecturer in Ancient History, University of Wisconsin, Summer Session, 1926. At Stanford since 1928.

†Harrington, Edward Wentworth (123) 691 Princeton, P-Station A, p
Instructor in Citizenship [(PA 6898)

A.B., Stanford, 1920; A.M., California, 1922. High School Teacher, 1921–24; Assistant Professor of Education and Teacher Training, San Jose State Teachers College, 1925–27. At Stanford since 1928.

†Harris, David (134) 2327 Ramona, P-*6* (PA 4463)
Assistant Professor of History

A.B., Stanford, 1925, A.M., 1925, Ph.D., 1928. Student, Universities of Paris, Berlin, and Vienna, 1925–27; Royall Victor Fellow in History, Stanford, 1927–28; Associate Professor of History, University of South Carolina, 1928–30, Fellow of the Social Science Research Council, 1930. At Stanford since 1930.

†Hartman, George Washington (123) 999 Sutter, SF-sf
Lecturer on Genito-Urinary Surgery [(Franklin 0270)

B.S., California, 1903; M.D., Johns Hopkins, 1908. Resident Physician, French Hospital, New York, 1908, Flushing Hospital, New York, 1909; Adjunct in Urology, German Hospital, 1909–18; Urologist, Franklin Hospital, San Francisco, 1918; Assistant, Urological Clinic, San Francisco Polyclinic, 1912–18; Chief of Clinic, San Francisco Polyclinic, 1918; Visiting Urologist, San Francisco Hospital. At Stanford since 1919.

†Hashimoto, Tadaichi (1234) 211 Third, Pacific Grove-pg
Research Chemist (Jacques Loeb Laboratory) [(Monterey 814)

Research work in Chemistry, since 1923; University Fellow, Stanford, 1925–26; Research Fellow, American Petroleum Institute, 1927–29. At Stanford since 1928.

†Hatfield, Henry Rand (3) 2695 Le Conte, Berkeley* (Ashberry 1436)
Lecturer in Accounting (Graduate School of Business)

A.B., Northwestern, 1892; Ph.D., Chicago, 1897; LL.D., Northwestern, 1923. Instructor in Political Economy, Washington University, 1894–98; Instructor in Political Economy, University of Chicago, 1898–1902, Assistant Professor and Dean of College of Commerce and Administration, 1902–4; Associate Professor of Accounting, University of California, 1904–9, Professor since 1909, Dean of College of Commerce, 1909–20 and since 1927, Dean of Faculties, 1920–23.

Hawley, Gertrude (123) 575 Salvatierra (PA 6417)
Acting Director of Roble Gymnasium

A.B., Vassar, 1911; A.M., State University of Iowa, 1928. Certificate in Hygiene and Physical Education, Wellesley College, 1917; Associate Professor of Hygiene and Physical Education, Northwestern University, 1917–28; Lecturer in Anatomy and Kinesiology, University of Southern California, 1928–30.

Hays, Alice Newman (1234) 526 Alvarado (PA 4296)
Reference Librarian

A.B., Stanford, 1896; B.L.S., New York State Library School, 1903. Assistant, Home Education Department, New York State Library, 1901. At Stanford since 1901.

Hays, Harford Holmes (123) 825 University, P-p (PA 8272)
Instructor in English

A.B., Stanford, 1924, A.M., 1927. Assistant in Instruction, Stanford, 1924–27. At Stanford since 1924.

Heaslet, Max Alfred (1234) 15 Stanford Union-*145* (PA 3121)
Acting Instructor in Mathematics

A.B., Oklahoma, 1927, A.M., 1929. Assistant in Instruction, University of Oklahoma, 1927–29.

†Heath, Harold (1234) 181 Ocean View, Pacific Grove-pg
Professor of Embryology [(Monterey 1808R)

A.B., Ohio Wesleyan, 1893; Ph.D., Pennsylvania, 1898; D.Sc., Ohio Wesleyan, 1919. Assistant in Biology, Ohio Wesleyan University, 1891–93; Professor of Biology, University of the Pacific, 1893–94; Harrison Fellow in Zoölogy, University of Pennsylvania, 1896–98. At Stanford since 1894.

†Heath, Harrison French (34) 133 S. Twelfth, San Jose-sj
Acting Assistant Professor of Education [(Ballard 2918J)

B.S., University of Washington, 1916, A.M., 1921. Head of Mathematics Department, Chehalis (Wash.) High School, 1916–17; Supervising Principal of Grades, Chehalis, 1917–18; Instructor in Mathematics, Officer School, U.S. Naval Training Camp, Seattle (Wash.), 1918; Principal, Renton (Wash.) High School, 1919–20, Sedro-Woolley (Wash.) High School, 1920–22; Superintendent of Schools, Burlington (Wash.), 1922–26; Instructor in Mathematics, San Jose State Teachers College, 1926–28, Assistant Professor, 1928–30, Associate Professor, since 1930, Personnel Counselor, since 1928; Assistant in Instruction, Education, Stanford, Spring Quarter, 1929, Acting Assistant Professor, Winter and Spring Quarters, 1930, Summer Quarters, 1929, 1930.

†Helvenston, Harold Finley (124) 2320 South Ct., P-*2182* (PA 8397)
Assistant Professor of English (Public Speaking), and Acting Director of Dramatics

Certificate, Yale University School of the Fine Arts, Department of the Drama. Student, Art Institute of Chicago, 1921–22, 1924; Art and Technical Director, University Players, Southampton, L.I., Season, 1927; Designer of Stage Settings for Connecticut College, New London (Conn.), Amateur Comedy Club of New York City, and Temple Players, San Francisco; Summer School of Music, Drama, and Art, Mills College, Summer, 1930. At Stanford since 1928.

†Herre, Albert W. C. T. (12) 211 Alexander, Los Gatos* (LG 457J)
Curator of the Zoölogical Museum

A.B., Stanford, 1904, A.M., 1905, Ph.D., 1909. Assistant in Zoölogy, Stanford, 1903–4; Professor of Biology, University of Nevada, 1909–10; Professor of Geography, Washington State Normal, 1915–17, Professor of Biology and Hygiene, 1917–20; Chief, Division of Fisheries, Bureau of Science, Manila (P.I.), 1920–28. At Stanford since 1928.

†Hetherington, Clark Wilson (234) Staller Ct., P-*3006* (PA 3490)
Professor of Hygiene and Physical Education

A.B., Stanford, 1895. Assistant in Physical Training, Stanford, 1891–93, Assistant in charge of Encina Gymnasium, 1893–96; Research Work on Individual Differences, Character Development, and Mental and Physical Tests, Whittier State School, 1896–98; Fellow in Psychology, Clark University, 1898–99, Fellow and Assistant in Psychology, 1899–1900; Professor of Physical Education and Director of Gymnasia and Athletics, University of Missouri, 1900–1910; Joseph Fels Endowment in Play and Educational Athletics, 1910–12; Lecturer, University of Wisconsin, Spring Semester, 1911–12, Fall Semester, 1912–13, Professor of Physical Education in charge of Professional Training Courses, 1913–18; Supervisor of Physical Education, State of California, 1918–21; Investigator in Physical Education, Institute of Educational Research, Teachers College, Columbia University, 1921–22; Research Work on Special Endowment, 1922–23; Professor of Physical Education, School of Education, New York University, 1924–28. At Stanford since 1929.

†Hicks, Arthur Clark (4) 159 Kellogg, P-p (PA 5046)
Acting Instructor in English

A.B., University of Oregon, 1922, A.M., 1927. Graduate Assistant, Oregon, 1922–23, 1926–27, Teaching Fellow, 1927–28, Instructor in English, 1928–30.

†Higby, Chester Penn (4) Kingscote*
Acting Professor of History

A.B., Bucknell University, 1908, A.M., 1910; Ph.D., Columbia, 1919. Instructor in History, Assistant Professor, Associate Professor, West Virginia University, 1916–23; Associate Professor of History, University of North Carolina, 1923–27; Professor of History, University of Wisconsin, since 1927; Lecturer in History, University of Texas, Summer Session, 1921; Lecturer, University of California, Summer Session, 1922; Acting Professor, University of West Virginia, Summer Session, 1926; Lecturer, University of Wisconsin, Summer Session, 1927.

†Hill, Andrew Putnam, Jr. (4) 2183 Bryant, P-p (PA 5004)
Acting Assistant Professor of Education

A.B., Stanford, 1922. Director of Industrial Arts, San Jose State Normal School, 1911–13; Director of Industrial Education, San Francisco City Schools, 1917–19; Assistant Superintendent, San Jose City Schools, 1924–27; Chief, Division of Schoolhouse Planning, Department of Education, State of California, since 1927.

†Hill, Harold Phillips (123) 3625 Jackson, SF-sf (Bayview 4329)
Clinical Professor of Medicine

A.B., Stanford, 1898; M.D., California, 1901. Assistant in Physiology, Department of Medicine, University of California, 1899–1901, Instructor, 1901–3; Assistant Visiting Physician, St. Luke's Hospital, 1903–6, Visiting Physician, 1906–20; Chief of Medical Staff, St. Luke's Hospital. At Stanford since 1912.

†Hill, Henrie Granville (123) 465 S. Fifteenth, San Jose-sj
Lecturer in Law [(Ballard 1863)

A.B., Stanford, 1909, J.D., 1911.

†Hinkle, George (123) 825 University, P-*2335* (PA 8272)
Instructor in English

A.B., Stanford, 1925, A.M., 1928. At Stanford since 1927.

†Hinsey, Joseph Clarence (123) 659 Tennyson, P* (PA 21958)
Professor of Anatomy

B.S., Northwestern University, 1922, M.S., 1923; Ph.D., Washington University (St. Louis), 1927. Fellow in Zoölogy, Northwestern, 1922–23; Instructor in Biology,

Western Reserve, 1923–24; Assistant in Neuroanatomy and Histology, Washington University School of Medicine, 1924–27, Assistant Professor, 1927–28; Assistant Professor of Neuroanatomy, Institute of Neurology, Northwestern University Medical School, 1928–29, Associate Professor, 1929–30. At Stanford since 1930.

HITCHCOCK, JEANNETTE MCCRORY (1234) 513 Salvatierra-*1287* (PA 8953)
Cataloguer, Library

A.B., Stanford, 1915; B.S. in L.S., University of Washington, 1918. Branch Librarian, South Tacoma Branch, 1918–19; First Assistant Cataloguer, Tacoma Public Library, 1919–22. At Stanford since 1923.

†HOBDY, WILLIAM C. (123) 2841 Divisadero, SF-sf (Fillmore 6816)
Clinical Instructor in Obstetrics and Gynecology

B.S., Kentucky, 1893; M.D., Columbia, 1896. House Surgeon and Physician, Patterson General Hospital, 1896–98; U.S. Public Health Service, 1898–1910; Chief Quarantine Officer, San Francisco, 1906–9; Visiting Physician, Queen's Hospital, Honolulu, 1910–11, Visiting Surgeon, 1911–15; Member, Territorial Board of Health, Honolulu, 1911–21; President, Medical Society, Hawaii, 1912–13; Visiting Surgeon, Children's Hospital, Honolulu, 1917–18; Assistant in Obstetrics and Gynecology, Stanford, 1925–29. At Stanford since 1925.

HOBE, ADELAIDE M. (1234) 700 Harvard, MP* (PA 8586)
Junior Statistical Associate, Food Research Institute

At Stanford since 1922.

[†HOLDEN, PAUL EUGENE 2320 South Court, P* (PA 3613)
Professor of Industrial Management (Graduate School of Business)]

B.S., Purdue, 1915. With E. C. Atkins & Co., Indianapolis (Ind.), 1915–17; Captain, Ordnance Dept., U.S. Army, 1917–19; Production Manager, Canadian plant, E. C. Atkins & Co., at Hamilton (Ontario), 1919–20; Assistant Production Manager, Remington Typewriter Company, Ilion (N.Y.), 1920–21; Engineer, Library Bureau, Ilion, 1921–22; Assistant Manager, Department of Manufacture, U.S. Chamber of Commerce, 1922–26. At Stanford since 1926.

HOLLANDS, SARAH TRUAIR (1234) 437 Cowper, P-p
Medical Clerk, Student Health Service

A.B., Mt. Holyoke, 1903. At Stanford since 1928.

†HOLMAN, EMILE FREDERIC (234) 112 Walnut, SF-sf (Walnut 4849)
Professor of Surgery

A.B., Stanford, 1911; B.A., Oxford, 1916; M.D., Johns Hopkins, 1918. Casualty House Surgeon, Radcliffe Infirmary, Oxford, 1916–17; Resident Medical Officer, Children's Hospital, Baltimore, 1918–19; Research Fellow, Hunterian Laboratory of Experimental Surgery, 1918–19; Assistant Resident Surgeon, Johns Hopkins Hospital, 1919–21, Resident Surgeon, 1921–23; Instructor in Surgery, Johns Hopkins Medical School, 1920–23; Resident Surgeon, Peter Bent Brigham Hospital, Boston, 1923–24; Austin Teaching Fellow, Harvard Medical School, 1923–24; Assistant Professor of Surgery, Western Reserve University Medical School, 1924–25; Attending Surgeon, Lakeside Hospital, Cleveland, 1924–25; Associate Professor of Surgery, Stanford University School of Medicine, 1925–26; Visiting Professor of Surgery, Peiping Union Medical College, 1930. At Stanford since 1925.

†HOOKER, GROVER CLEVELAND (123) 136 Harriet, P-p (PA 22667)
Acting Assistant Professor of Education

B.E., Mississippi State Teachers College, 1915; A.B., University of Colorado, 1923, A.M., 1924. Superintendent of Schools, Mississippi, 1915–21; Instructor, Mississippi State Teachers College, Summer Sessions, 1916–20; Superintendent of Schools, Arvada (Colo.), 1924–26; Extension Faculty, University of Colorado and Colorado State Teachers College, 1924–26; Assistant Superintendent of Schools, Jackson (Miss.), 1926–27; Director of Practice Teaching, Millsaps College, 1926–27, Professor of Education and Psychology, 1927–29.

HOOPS, REINALD (4) 222 Stanford Union* (PA 3121)
Acting Assistant Professor of German

Ph.D., University of Freiburg i.B., 1929. Member of German Department, University of Glasgow, Scotland, since 1929.

†Hoover, Theodore Jesse (123) 627 Salvatierra* (PA 4400)
Professor of Mining and Metallurgy, and Dean of the School of Engineering

A.B., Stanford, 1901. Assayer, Superintendent, Manager, Consulting Engineer, Managing Director, Director, and President of many mining companies in America, Europe, Asia, Africa, and Australia, 1901–19. At Stanford since 1919.

†Hopkins, William Stephen (123) 549 Stanford, P-55 (PA 21550)
Instructor in Citizenship

B.S., Oregon, 1925, A.M., 1928. Graduate student, University of California, 1928–29. At Stanford since 1930.

†Hosford, George Newton (123) 31 Shoreview, SF-sf (Evergreen 8462)
Clinical Instructor in Surgery (Ophthalmology)

A.B., California, 1918, M.D., 1923. Assistant in Surgery (Ophthalmology), University of California, 1923–26, Instructor, 1926–29; Visiting Ophthalmologist, Children's Hospital, 1926–31. At Stanford since 1929.

†Hotchkiss, Willard Eugene (123) 450 El Escarpado (PA 6236)
Dean of Graduate School of Business

Ph.B., Cornell, 1897, A.M., 1903, Ph.D., 1905; LL.D., Northwestern, 1927. Instructor in Political Science, University of Pennsylvania, 1904–5; Assistant Professor of Economics, Northwestern University, 1905–7, Associate Professor, 1907–9, Professor, 1909–17, 1921–25, Dean, School of Commerce, 1908–17; Professor of Economics and Director of Business Education, University of Minnesota, 1917–19; Acting Professor of Political Science, Stanford University, 1915–16, University of California, Summer Session, 1916; Secretary, Shipbuilding Labor Adjustment Board, 1918–19; Secretary, President's Industrial Conference, 1920; Executive Director, National Industrial Federation of Clothing Manufacturers, 1920–25; Educational Adviser, Institute of American Meat Packers, 1923; Research Staff, U.S. Coal Commission, 1923; Chairman, California Economic Research Council, 1926–29; Western Regional Director, President's Emergency Committee for Employment, since December, 1930. At Stanford, 1915–16, and since 1925.

†Hotelling, Harold (123) 586 Foothill Road* (PA 21648)
Associate Professor of Mathematics

A.B., University of Washington, 1919, M.S., 1921; Ph.D., Princeton, 1924. University Scholar, University of Chicago, Summer Quarter, 1920; Assistant in Mathematics, University of Washington, 1920–21; J.S.K. Fellow in Mathematics, Princeton University, 1921–22, Instructor, 1922–24; Junior Research Associate, Food Research Institute, Stanford, 1924–25, Research Associate, 1925–27. At Stanford since 1924.

†Howard, Earl Dean (2) 450 El Escarpado (PA 6236)
Special Lecturer on Industrial Management (Graduate School of Business)

Ph.B., University of Chicago, 1902, Ph.M., 1903, Ph.D., 1905. Fellow in Economics, Chicago, 1903–5; Instructor in Economics, University of Pennsylvania, 1905–7; Assistant Professor, Northwestern University, 1907–11, Professor, 1911–30; Lecturer on Industrial Relations, Harvard, 1921–23.

†Howard, Nelson J. (1234) 2814 Lyon, SF-sf (West 7591)
Instructor in Surgery

A.B., Johns Hopkins, 1921, M.D., 1925. Surgical House Officer, Johns Hopkins Hospital, 1925–26; Assistant Resident Surgeon, Lane Hospital, 1926–27, Resident Surgeon, 1927–29. At Stanford since 1926.

†Howe, Ralph Denny (1234) 140 Iris, Redwood City* (RC 1446M)
Examining Physician, Men Students' Health Service

A.B., Stanford, 1925, M.D., 1929. Interne, Highland Hospital, Oakland, 1928–29. At Stanford since 1930.

†Huffman, Hugh Martin (3) 729 Princeton, P-*651*
Acting Instructor in Chemistry

A.B., Stanford, 1925, A.M., 1926, Ph.D., 1928. Instructor in Chemistry, San Jose State Teachers College, 1925–27; University Fellow in Chemistry, Stanford, 1926–27; American Petroleum Institute Research Fellow, Stanford, 1927–31.

†Huggins, Maurice Loyal (123) 600 Foothill Road (PA 3969)
Assistant Professor of Chemistry

A.B., B.S., California, 1919, M.S., 1920, Ph.D., 1922. Assistant in Chemistry, California, 1919–20, University Fellow in Chemistry, 1920–21, du Pont Fellow, 1921–22; National Research Fellow in Chemistry, Harvard, 1922–23; California Institute of Technology, 1923–25. At Stanford since 1925.

Hugo, Merrill Salat (123) Mariposa Ave., Mountain View* (MV 4811)
Instructor in Mechanical Engineering

A.B., Stanford, 1924. Designer, Anderson Barngrover Manufacturing Company, 1925; Caterpillar Tractor Company, 1926; Assistant Superintendent, Grey and Danielson Manufacturing Company, 1927–28; Federal Telegraph Company, 1929–30. At Stanford since 1930.

†Hulme, Edward Maslin (123) 638 Channing, P-p (PA 5267)
Professor of History

A.B., Stanford, 1897; A.M., Cornell, 1902. University Scholar, Harvard University, 1900–1901; Cornell Traveling Scholar at Collège de Sorbonne, 1902; Student in Europe, 1919–20, 1928; Instructor in Literature and History, High School, Portland (Ore.), 1897–1900; Assistant Professor of History, University of Idaho, 1902–5, Associate Professor, 1905–6, Professor, 1906–21, Dean of College of Letters and Science, 1917–21; Acting Professor of European History, Stanford, Winter Quarter, 1918; Professor of European History, University of California, Summer Session, 1918, University of Chicago, 1919, University of Oregon, Summer Session, 1925, 1926, University of Utah, Summer Session, 1929. At Stanford since 1921.

Hungate, Robert Edward (123) 1425 Alma, P* (PA 21426)
Acting Instructor in Biology

A.B., Stanford, 1929.

†Hunt, Ernest Paul (123) 127 Harriet, P-p (PA 4449)
Supervisor of Physical Education

A.B., Indiana, 1913. Assistant in Physical Education, Indiana University, 1910–13; Director of Physical Education, Linton (Ind.), 1913–14, Monte Vista (Colo.), 1914–16; Supervisor of Physical Education, Waco (Tex.) Public Schools, 1916–18, Berkeley High School, 1918–21. At Stanford since 1922.

†Hurwitz, Samuel H. (123) 2659 Filbert, SF-sf (Walnut 4422)
Associate Clinical Professor of Medicine

A.B., Harvard, 1907, A.M., 1908; M.D., Johns Hopkins, 1912. Medical House Officer, Johns Hopkins Hospital, 1912–13; Surgical House Officer, Peter Bent Brigham Hospital, Boston, 1913–15; Instructor in Research Medicine, Hooper Foundation for Medical Research, University of California, 1915–17; Assistant Clinical Professor of Medicine, University of California Medical School, 1917–26; Chief, Medical Department, Mount Zion Hospital, San Francisco, 1918–28. At Stanford since 1926.

Huskey, Anne K. (Mrs.) (1234) 1344 Emerson, P* (PA 21886)
Secretary, Civil Engineering

At Stanford since 1916.

Huston, Margaret Davidson (Mrs.) (1234) 575 Salvatierra* (PA 6417)
Secretary, Committee on Scholarship

Ph.B., University of Chicago, 1903. At Stanford since 1922.

†Ichihashi, Yamato (123) 523 Salvatierra (PA 3647)
Associate Professor of Japanese History and Government

A.B., Stanford, 1907, A.M., 1908; Ph.D., Harvard, 1914. Assistant in Economics, Stanford, 1908–10; Special Agent for U.S. Immigration Commission, 1908–10;

Graduate Student, Harvard University, 1910–12, Henry Bromfield Roger Memorial Fellow in Sociology, 1911–12; Adviser to Government Delegates of Japan, First International Labor Conference, Washington (D.C.), 1919; Confidential Secretary to the Japanese Senior Delegate, Washington Conference, 1921–22. At Stanford 1908–10, and since 1913.

†Inman, Thomas George (123) 4547 California, SF-sf (Skyline 7036)
Associate Clinical Professor of Medicine (Neurology)

Ph.G., California College of Pharmacy, 1892; M.D., Cooper Medical College, 1894. Assistant Demonstrator of Anatomy, Cooper Medical College, 1895–1900; Instructor in Applied Anatomy, 1900–1911; Assistant Surgeon, St. Luke's Hospital, San Francisco, 1906–13; Neurological Institute, Frankfurt-am-Main, 1913, Berlin, Paris, 1914; Visiting Neurologist, St. Luke's Hospital, San Francisco, 1915–21, and since 1924; Lieutenant, U.S.N.R.F., December 1917 to February 1919. At Stanford since 1915.

Irwin, Thomas George (123) 1776 Waverley, P-*1762* (PA 22335)
Instructor in Journalism

A.B., Stanford, 1930. At Stanford since 1928.

†Jackson, Jacob Hugh (1) 445 El Escarpado-*2428*
Professor of Accounting (Graduate School of Business)

A.B., Simpson, 1912; M.B.A., Harvard, 1920, LL.D., Simpson, 1930; C.P.A. (Wisconsin) 1919, (Massachusetts) 1920, (California) 1927. Instructor in Bookkeeping, Davenport (Ia.), and St. Louis (Mo.), High Schools, 1913–16; Assistant Professor of Commerce, University of Oregon, 1916–17; Traveling Fellow, American University, 1917–18; Assistant Professor of Accounting, University of Minnesota, 1918–19; Assistant Professor of Accounting, Graduate School of Business Administration, Harvard University, 1920–21, Professor of Accounting, 1923–27; Lecturer in Auditing, New York University, 1922–23, University of Chicago, Summer Quarter, 1923; Associated with Price, Waterhouse & Co., New York and Boston, 1921–26, San Francisco, since 1927. At Stanford since 1926.

†Jacobsen, Lydik Siegumfeldt (123) *222* Sequoia Ave., P* (PA 6673)
Assistant Professor of Mechanical Engineering

A.B., Stanford, 1921, Ph.D., 1927. Engineering Research with Westinghouse Electric and Manufacturing Company, East Pittsburgh (Pa.), 1921–24. At Stanford since 1924.

Jameson, Eloise (123) Hotel President, P-p (PA 4171)
Junior Research Associate in Chemistry

A.B., Stanford, 1910, A.M., 1912, Ph.D., 1930. At Stanford since 1930.

†Johnston, Oliver Martin (123) 528 Alvarado-*1132* (PA 5986)
Professor of Romanic Languages

A.B., Mississippi College, 1890, A.M., 1892; Ph.D., Johns Hopkins, 1896. Principal, Preparatory Department, Mississippi College, 1890–91, Professor of English, 1891–93; Fellow in Johns Hopkins University, 1895–96; Lecturer in French Philology, Bryn Mawr College, 1896–97; Secretary, Pacific Coast Philological Association, 1909–13, President, 1917; Professor of French, University of California, Summer Session, 1919; Professor of Italian, University of Chicago, Summer Quarter, 1922; Professor of French, University of Washington, Summer Quarter (First Term), 1924, University of Colorado, Summer Quarter (First Term), 1926; President, Modern Language Association of Northern and Central California, 1926–27. At Stanford since 1897.

†Jones, Eliot (123) 611 Salvatierra-*2575* (PA 8555)
Professor of Economics

A.B., Vanderbilt, 1906; A.M., Harvard, 1908, Ph.D., 1913. Instructor in Economics, Harvard University, 1912–13, University of Pennsylvania, 1913–14; Associate Professor of Economics, Iowa State University, 1914–16; Professor of Economics, University of Texas, 1916–17; Federal Trade Commission, 1917; War Industries Board, 1918; Lecturer in Economics, University of California, Summer Sessions, 1920, 1921, 1924; McKinley Professor of Public Utilities, University of Illinois, 1924–25; Lecturer in Economics, University of Chicago, Summer Quarter, 1925. At Stanford since 1917.

§Katz, Louise Waldman (1)
Cataloguer, Hoover War Library

B.S., Cornell, 1900. Graduate work in History, Cornell University, 1900–1901; Student, New York State Library School, Albany (N.Y.), 1901–3; Cataloguer, University of California, 1903–11; Special Cataloguer, University of Illinois, 1913–14; Catalogue Reviser, University of Minnesota, 1914–16; Cataloguer, Lane Medical Library, 1917–20; Catalogue Reviser and Classifier, University of Minnesota, 1920–21. At Stanford, 1916–17, and 1921–31.

†Kay, Willard E. (123) 114 Fifteenth Ave., SF-sf (Evergreen 8212)
Clinical Instructor in Medicine

A.B., Stanford, 1912, A.M. (in Medicine), 1915, M.D., 1916. Junior and Senior Interneships, Lane Hospital, 1916–18; U.S.A. Medical Corps (Base and General Hospitals), 1918–20; U.S. Public Health Service (P.A. Surgeon), 1920–22. At Stanford 1913–14, and since 1923.

†Kelly, Thomas Henshaw (123) 2835 Divisadero, SF-sf (Walnut 3434)
Clinical Instructor in Medicine

M.D., University of Cincinnati, 1914. Interne, Cincinnati General Hospital, 1914–15; Instructor in Medicine (full-time), University of Cincinnati, 1915–19; Medical Director, St. Francis Hospital, San Francisco, 1920; First Lieutenant, Captain, Major, M.C., U.S.A., 1917–19. At Stanford since 1921.

†Kendall, Henry Plimpton (2) 45 El Escarpado (PA 6236)
Special Lecturer on Industrial Management (Graduate School of Business)

A.B., Amherst, 1899. Special Lecturer, Harvard Graduate School of Business Administration, Tuck School of Business Administration (Dartmouth College), Wharton School (University of Pennsylvania), Massachusetts Institute of Technology.

†Kennedy, Arthur Garfield (12) 435 Coleridge, P-p (PA 8625)
Professor of English Philology

A.B., Doane College, 1902; A.M., Nebraska, 1905; Ph.D., Stanford, 1914. Teacher, Chadron (Neb.) Academy, 1902–4, Norfolk (Neb.) High School, 1905–8; Instructor in German and English, Spearfish (S.D.) State Normal School, 1908–12. At Stanford since 1914.

†Kenney, William (123) 1379 Sixth Ave., SF-sf (Montrose 1310)
Clinical Instructor in Medicine

M.D., California, 1905. Resident Physician, St. Luke's Branch Hospital, 1906–8; Resident Physician, Relief Home, 1908–14; Assistant in Medicine, Stanford Medical School, 1914–16, and since 1917. At Stanford since 1914.

†Kerr, Paul Francis (4) Stanford Geological Survey, Santa Paula-sp
Acting Assistant Professor of Geology

B.S., Occidental, 1919; Ph.D., Stanford, 1923. Acting Instructor in Geology, Stanford, Autumn Quarter, 1923, Acting Assistant Professor, Summer Quarters, 1926–30; Instructor in Mineralogy, Columbia University, 1924–26, Assistant Professor, since 1926.

†Kimball, Dexter Simpson (1) Kingscote* (PA 7116)
Acting Professor of Industrial Management (Graduate School of Business)

A.B., Stanford, 1896, Engineer, 1913; LL.D., University of Rochester, 1926; Doctor of Engineering, Case School of Applied Science, 1930. Assistant Professor of Machine Design, Cornell University, 1898–1901, Professor of Machine Construction, 1904–5, Professor of Machine Design and Construction, 1905–15, Professor of Industrial Engineering, since 1915; Dean of College of Engineering, Cornell, since 1920, Acting President, July 1–October 1, 1918, and October 1, 1929–January 1, 1930.

†Kindy, Ward B. (123) 566 Everett, P* (PA 8506)
Assistant Professor of Electrical Engineering

B.E.E., Ohio State University, 1916, E.E., 1929. Electrical Inspector, U.S. Army Signal Corps, 1916–17; Aërial Gunnery Instructor, U.S. Naval Air Station, Key

§ Deceased, January 9, 1931.

West, 1918; Instructor in Electrical Engineering, Iowa State College, 1920–21; Industrial Research and Development, 1928–29. At Stanford since 1921.

†Kingston, John Joseph (123) 231 Thirty-second Ave., SF-sf
Assistant Clinical Professor of Pediatrics [(Evergreen 5070)

M.D., California, 1921. Interne, University Hospital, 1920–21; Assistant in Pediatrics, University Hospital, 1921–22. At Stanford since 1923.

Kinsey, Howard (3) 251 Urbano Drive, SF-sf (Delaware 1389)
Advisory Director of Tennis

Doubles Champion of United States, Clay Courts, 1923–24, Grass Courts, 1924; Member United States Davis Cup Team, 1924; Hard Court Doubles Champion of Europe, Paris, 1926; Finalist in Singles, Doubles, and Mixed Doubles on Grass Courts, Wimbledon, 1926; Several times Champion Pacific Coast Singles and Doubles; Tennis Coach, California Tennis Club.

[†Kirkwood, Marion Rice 249 Lowell, P* (PA 21159)
Professor of Law, and Dean of the School of Law]

A.B., Stanford, 1909, J.D., 1911; LL.D., University of Southern California, 1926. Assistant Professor of Law, University of Oklahoma, 1911–12; Acting Professor of Law, Cornell, Summer Session, 1927; Visiting Professor of Law, Duke University, 1930–31; Acting Professor of Law, University of Michigan, Summer Session, 1931. At Stanford since 1912.

†Kofoid, Charles Atwood (34) 2616 Etna, Berkeley-b
Lecturer in Zoölogy

A.B., Oberlin, 1890; A.M., Harvard, 1892, Ph.D., 1894; Hon. D.Sc., Oberlin, 1915, University of Wales, 1920. Instructor in Vertebrate Morphology, University of Michigan, 1894–95; Superintendent, Biological Station, University of Illinois, 1895–1900, Assistant Professor of Zoölogy, 1897–1900; Assistant Professor and Associate Professor of Histology and Embryology, University of California, 1900–1910, Professor of Zoölogy, since 1910.

†Kramers, H. A. (3) 234 Embarcadero, P-p (PA 6532)
Lecturer in Physics

†Krause, Allen Kramer (123) Desert Sanatorium, Tucson, Ariz.
Clinical Professor of Medicine [(Tucson 2000)

A.B., Brown, 1901, A.M., 1902; M.D., Johns Hopkins, 1907. Assistant and Instructor in Pathology, Johns Hopkins, 1907–9; Associate Director, Saranac Laboratory, 1906–16; Associate Professor of Medicine, Johns Hopkins, 1916–29; Director, Kenneth Dows Research Laboratories, Johns Hopkins University and Hospital, 1922–29; Lecturer, Trudeau School of Tuberculosis, 1916–29; Visiting Lecturer in Medicine, Johns Hopkins, since 1930; President and Director, Desert Sanatorium, since 1929. At Stanford since 1929.

†Kreps, Theodore John (123) 1487 College, P* (PA 21857)
Associate Professor of Statistics (Graduate School of Business)

A.B., University of Colorado, 1920; A.M., Harvard, 1924, Ph.D., 1928. Instructor in Economics, and Tutor in the Division of History, Government, and Economics, Harvard, 1925–30; Frederick Sheldon Traveling Fellow, 1926; Laura Spelman Rockefeller Traveling Fellow, Bureau of International Research, 1928–29; Lecturer in Geology, University of Colorado, Summer Session, 1921; Lecturer in Economics, University of Southern California, Summer Session, 1928. At Stanford since 1930.

†Kreutzmann, Henry A. R. (123) 123 Alhambra, SF-sf (Walnut 2736)
Clinical Instructor in Surgery (Genito-Urinary)

M.D., University of Pennsylvania, 1916. Instructor in Physiology, Harvard Medical School, 1916-17; Surgical House Officer, Peter Bent Brigham Hospital, Boston, 1917–18; First Lieutenant, M.C., A.E.F., 1918–19; Urologist, N.W.P.P.R.R., San Francisco; Urologist, Chinese Hospital. At Stanford since 1928.

†La Mer, Victor Kuhn (3) 1261 Webster, P*
Acting Associate Professor of Chemistry

A.B., Kansas, 1915; Ph.D., Columbia, 1921. Cutting Traveling Fellow, Cambridge and Copenhagen, 1922–23; Instructor in Chemistry, Columbia, 1920–24, Assistant Professor, 1924–28, Associate Professor, since 1928; Lecturer, Institute of Chemistry, Northwestern University, Summer, 1928.

†Lamson, David (1234) 622 Salvatierra-*3001* (PA 4843)
Sales Manager, University Press, and Acting Instructor in Journalism (Spring Quarter)

A.B., Stanford, 1925. At Stanford since 1925.

†Landau, Edmund Georg Hermann (4) 582 Alvarado-*1143* (PA 21528)
Acting Professor of Mathematics

Dr. phil., Berlin, 1899; Dr. phil. h.c., Oslo, 1929. Privatdozent, University of Berlin, 1901–5, Professor, 1905–9; Ordentlicher Professor, University of Göttingen, since 1909.

Landis, Maude (1234) 2340 Clay, SF-sf (West 8000)
Superintendent of Nurses, and Professor of Nursing

A.B., Kansas, 1897; Graduate, Scarritt Hospital Training School, 1900. Graduate Study, Presbyterian Hospital, Chicago, 1905; Graduate Study, Department of Nursing and Health, Columbia University, 1917; Superintendent of Hospitals and Training Schools, 1901–17; Member, Missouri State Board of Examination and Registration of Nurses, 1909–14; Educational Director, Lakeside Hospital Training School, Cleveland (Ohio), 1917–18; Director, Connecticut Training School for Nurses, in affiliation with Yale University Medical School, 1918–21. At Stanford since 1921.

Langnecker, Harry Leslie (123) 747 Santa Ynez (PA 4917)
Associate Professor of Medicine (Physical Therapeutics)

A.B., Stanford, 1901; M.D., Johns Hopkins, 1906. House Officer, Johns Hopkins Hospital, 1906–8; Orthopedic House Officer, Massachusetts General Hospital, 1908, Assistant in Orthopedic Out-Patient Department, 1909–10, Assistant Resident Physician, 1911–13, Assistant to Orthopedic Surgeon-in-Chief, 1913–15; Lieutenant, M.C., U.S.N.R.F., April 1917 to March 1919. At Stanford since 1915.

†Lanz, Henry (1234) 786 Melville, P-p (PA 7644)
Assistant Professor of Slavic Languages

Ph.D., Heidelberg, 1911. Student, Imperial University, Moscow, 1904–6, Heidelberg, 1906–11; Instructor-elect in Logic, Reform Gymnasium, and Lecturer in Aesthetics, Beethoven School of Music, Moscow, 1914. At Stanford since 1918.

LaPiere, Richard T. (124) 524 Oberlin, P-*2622*
Instructor in Economics

A.B., Stanford, 1926, A.M., 1927, Ph.D., 1930. Student, London School of Economics and Political Science, 1927–28; Teaching Assistant in Economics, Stanford, 1928–29. At Stanford since 1928.

Layman, Mary H. (12) 2156 Pacific, SF-sf (Walnut 5255)
Associate Clinical Professor of Pediatrics

M.D., Ludwig-Maximilian University, Munich, 1913. Assistant, Medical and Pediatric Clinic, Munich, 1915–16; Assistant, Pediatric Clinic, Stanford Medical School, since 1917; Assistant Visiting Physician, Pediatrics, San Francisco Hospital, 1918–20. At Stanford since 1917.

†Lee, Russel Van Arsdale (123) 440 Foothill Road (PA 4220)
Assistant Clinical Professor of Therapeutics

B.S., California, 1917; M.D., Stanford, 1920. Senior Interne in Medicine, Stanford, 1920–21; Visiting Physician, San Francisco Hospital, since 1921. At Stanford since 1921.

LEE, RUTH DORINDA TOLDERVEY (1234) 660 Salvatierra (PA 8477)
Secretary to Dr. Alsberg, Food Research Institute

A.B., Stanford, 1922. At Stanford since 1925.

†LEIGHTON, PHILIP ALBERT (123) 455 Cornell, P* (PA 3260)
Assistant Professor of Chemistry

A.B., Pomona College, 1920, A.M., 1923; A.M., Harvard, 1925, Ph.D., 1927. Instructor in Chemistry, Harvard, 1926–27; Sheldon Traveling Fellow from Harvard, 1927–28. At Stanford since 1928.

†LEMOS, PEDRO JOSEPH (1234) 460 Churchill, P* (PA 4893)
Director of the Museum and Art Gallery

Assistant Professor of Etching and Lettering, University of California, 1910–11, Professor of Design and Applied Arts, 1911–12; Director of San Francisco Institute of Art, 1912–17; Exhibitor, Pennsylvania Academy of Fine Arts, Carnegie Institute, Pittsburgh, Brooklyn Museum of Fine Arts, Chicago Art Institute, Corcoran Art Gallery, New York Galleries, Panama-Pacific International Exposition; Editor of the *School Arts Magazine*, since 1919. At Stanford since 1917.

†LESLEY, EVERETT PARKER (123) 582 Alvarado* (PA 21528)
Professor of Mechanical Engineering

A.B., Stanford, 1897; M.M.E., Cornell, 1905. Apprentice and Foreman in Union Iron Works, San Francisco, 1897–1903; Assistant Inspector to Naval Constructor, 1903–4; Draftsman at U.S. Experimental Model Basin, Washington (D.C.), 1905–7. At Stanford since 1907.

†LEWIS, JOHN KENT (1234) 69 Santa Paula, SF-sf (Lockhaven 2115)
Assistant Professor of Medicine

A.B., Stanford, 1918, M.D., 1922. Junior Interne, Lane Hospital, 1921–22; Resident in Medicine, Lane Hospital, 1923–25; Fellow in Medicine, Johns Hopkins, 1927–28. At Stanford since 1923.

†LIGGETT, JAMES BENNETT (123) 760 Waverley, P-p (PA 7340)
Teaching Specialist in Foundry Practice

Apprentice and Foundry Moulder, Falls Rivet and Machine Co., Cuyahoga Falls (Ohio), 1883–88, Webster, Camp & Lane, Akron (Ohio), 1888–93, Bowler & Co., Cleveland (Ohio), 1893–98, Cleveland Steel Casting Co., 1898–99; Foreman, Born Steel Range Co., Cleveland (Ohio), 1899–1902, Westinghouse Electric Co., Cleveland (Ohio), 1902. At Stanford since 1902.

†LISTON, EDWARD (123) 261 Hamilton, P-p (PA 7139)
Examining Physician, Men Students' Health Service

M.D., Royal College of Physicians and Surgeons (England), 1922.

LOCKWOOD, SHERMAN (3) 6154 California Street, SF-sf (Evergreen 3034)
Acting Instructor in Tennis

Canadian National Championship in tennis doubles and mixed doubles, 1927; California State Championship, doubles and mixed doubles, 1927; Western Canadian Championship, doubles, 1928; Maryland State Doubles Championship, 1930; Ranked No. 6 in National Intercollegiate Singles and No. 2 in Doubles, 1930; Coach in tennis, University of Oregon, 1928–30; Coach, California Tennis Club, 1930.

†LONG, ROYCE REED (1234) 583 Salvatierra (PA 4548)
Professor of Physical Education and Hygiene

A.B., Stanford, 1908. Assistant in Physical Education, Stanford, 1902–4; Director of Gymnasium and Track Coach, Vanderbilt University, 1904–6; Instructor and Assistant Professor of Hygiene, Stanford, 1906–14; Instructor, University of California, Summer Sessions, 1912, 1913, 1914; Professor of Physical Education and Hygiene, Colorado State Teachers College, 1914–16, 1919–27; Graduate Student, Johns Hopkins University, 1916–17; First Lieutenant and Captain, S.C., U.S.A., 1917–19; Professor of Health Education, Colorado State Teachers College, on leave, 1927–28. At Stanford since 1927.

†Luck, James Murray (123) 245 Emerson, P* (PA 21867)
Assistant Professor of Biochemistry

A.B., University of Toronto, 1922; Ph.D., Cambridge University, 1925. Student, Royal Commission for the Exhibition of 1851, 1922–25; Demonstrator in Biochemistry, University of Toronto, 1925–26. At Stanford since 1926.

†Luckett, George Sparr (1234) 419 Webster, P* (PA 8726)
Associate Professor of Hygiene and Physical Education

A.B., Wooster College, 1907; M.D., George Washington, 1912. Professor of Hygiene, University of New Mexico, Summer Quarters, 1928, 1930; Administrative Work in Public Health, 12 years. At Stanford since 1930.

†Luke, Ittai Albert (123) 1023 Emerson, P* (PA 3236)
Associate Professor of Military Science and Tactics

A.B., University of Kansas, 1914. Magnetic Observer, Department of Terrestrial Magnetism, Carnegie Institution of Washington, 1914–16; Graduate Student and Assistant in Physics, Stanford, 1917; Entered U.S. Army, 1917; Captain, Ordnance Department. At Stanford since 1929.

†Lundquist, Dell Theodore (123) 2295 Emerson, P* (PA 5326)
Examining Physician, Men Students' Health Service

A.B., Stanford, 1922, M.D., 1927. Senior Interne and House Officer in Surgery, Lane and Stanford University Hospitals, 1927–28. At Stanford since 1927.

Luther, Chester Francis (1234) 257 Toyon-*2714* (PA 3121)
Instructor in Mathematics

A.B., Stanford, 1928, A.M., 1929. At Stanford since 1928.

†Lutz, Ralph Haswell (12) 344 Serra-*67* (PA 4535)
Professor of History, and Chairman of Directors, Hoover War Library

A.B., Stanford, 1906; LL.B., Washington, 1907; Ph.D., Heidelberg, 1910. Student, Universities of California, Summer 1906, Bonn and Heidelberg, 1907–10, Berlin, Summer, 1913; Instructor in History, University of Washington, 1911–16, Assistant Professor, 1916–20; Lecturer in European History, Stanford University, 1915–16. At Stanford, 1915–16, and since 1920.

†Lyman, George Dunlap (123) 3673 Jackson, SF-sf (Bayview 3570)
Lecturer in Pediatrics

A.B., Stanford, 1905; M.D., Columbia University, College of Physicians and Surgeons, 1909. Interne, Bellevue Hospital, New York, 1911; Post Graduate Student, University of Munich, Von Pirquet Clinic (Vienna), and Externe, Waissen Haus, Berlin, 1912–14; Chief of Clinic, Department of Pediatrics, St. Luke's Hospital, San Francisco.

†Lyon, Leonard Saxton (123) 708 National City Bank Bldg. [Los Angeles-la (Faber 3901)
Lecturer in Law

A.B., Stanford, 1918.

†McBain, James William (123) 571 Foothill Road (PA 8334)
Professor of Chemistry

A.B., University of Toronto, 1903, A.M., 1904; Ph.D., Heidelberg, 1908; Hon. Sc.D., Brown University, 1923, University of Bristol, 1928. Fellow of the Institute of Chemistry; Lecturer in Physical Chemistry, University College, Bristol, England, 1906–19, Leverhulme Professor of Physical Chemistry, 1919–26; President, Association of University Teachers, Great Britain, 1922–23; Fellow of the Royal Society, 1923; President, Bristol University Alumni Association, 1923–26; Visiting Professor, University of California, 1926; Vice-President, Faraday Society, 1926–29; Associate Editor, *Journal of American Chemical Society,* and *Journal of Physical Chemistry.* At Stanford since 1927.

McBain, Mary Evelyn Laing (Mrs.) (123) 571 Foothill Road (PA 8334)
Research Associate, Chemistry

Sc.D., University of Bristol, 1922. Research Associate, University of Bristol, 1922–26; awarded Ellen K. Richards Prize in Chemistry; Assistant Professor of Chemistry, Stanford, 1927–29. At Stanford since 1927.

McClelland, John (1234) 1180 California, P-*1036* (PA 3754)
Instructor in English

A.B., Stanford, 1924, A.M., 1925. At Stanford since 1925.

McCormick, Marion Todd (4) 846 Middlefield, P-*131* (PA 3378)
Secretary to Alumni Secretary

B.S., Drexel Institute, 1928. At Stanford since 1928.

McCracken, Isabel (123) 634 Arguello-*1545* (PA 4652)
Professor of Zoölogy

A.B., Stanford, 1904, A.M., 1905, Ph.D., 1908. Student, Paris and London, 1913–14. At Stanford since 1904.

McCully, Leona Hadley (Mrs.) (4) 1035 Bryant, P-p (PA 21349)
Acting Assistant Professor of Education

A.B., Indiana University, 1905; A.M., Stanford, 1928. Teacher of History, Evansville (Ind.) High School, 1905–7; Instructor in Psychology, Chico State Teachers College, 1921–22; Counselor and Teacher of Social Studies, Palo Alto Union High School, since 1922; Acting Assistant Professor of Education, Stanford, Summer Quarters, 1926–30, Assistant in Instruction, Autumn Quarters, 1926–30.

†McDowell, John Ezra (1234) Los Altos-*131* (LA 56)
Academic Secretary, and Alumni Secretary

A.B., Stanford, 1900. At Stanford since 1900.

McDowell, Margaret Deering (123) 350 Addison, P-p (PA 8337)
Junior Research Associate, Chemistry

A.B., Stanford, 1926, A.M., 1927. At Stanford since 1927.

†McFarland, Frank Mace (123) 775 Santa Ynez (PA 6925)
Professor of Histology

Ph.B., De Pauw, 1889; A.M., Stanford, 1893; Ph.D., Würzburg, 1896. Professor of Biology and Geology, Olivet College, 1889–92; Student, Würzburg, Zürich, and Naples, 1894–96. At Stanford since 1892.

†MacGinitie, George Eber (1234) 210 Granite, Pacific Grove* [(Monterey 1813)
Assistant Professor of Zoölogy, and Assistant to the Director, Hopkins Marine Station

A.B., Fresno State Teachers College, 1925; A.M., Stanford, 1928. Assistant Instructor in Biology, Fresno State Teachers College, 1925–27, Instructor, 1927–28. At Stanford since 1928.

[†McGregor, Richard Crittenden Manila, P.I.
Lecturer in Zoölogy (Ornithology)]

A.B., Stanford, 1898. Curator of Birds, Bureau of Science, Philippine Islands. Associate Editor of the Publications of Bureau of Science, Philippine Islands.

McKendry, Marion (1234) 657 Santa Ynez-*1265* (PA 8659)
Secretary, School of Law

At Stanford since 1915.

†McKenney, Arthur Carol (123) 2424 Larkin, SF-sf (Graystone 9255)
Clinical Instructor in Medicine

A.B., Stanford, 1922, M.D., 1925. House Officer in Medicine, San Francisco Hospital, 1925–26, Assistant Visiting Physician, since 1926; Consultant in Gastroenterology to U.S. Veterans' Hospital, Palo Alto, since 1928; Instructor in Medicine, U.S.V.B., Postgraduate School. At Stanford since 1926.

†McKenzie, Roger Bain (123) 224 Cherry, SF-sf (Skyline 3250)
Clinical Instructor in Medicine

A.B., California, 1919; M.D., Stanford, 1924. Senior Interne, Medicine, Lane Hospital, 1924–25; Assistant in Medicine, Stanford, 1926–29. At Stanford since 1926.

McLean, Philip Taggart (1234) 330 Waverley, P-*1513*
Reference Librarian, Hoover War Library

A.B., Pomona, 1925. At Stanford since 1925.

†Macmahon, Arthur W. (4) 625 Salvatierra-*3004* (PA 6518)
Acting Associate Professor of Political Science

A.B., Columbia, 1912, A.M., 1913, Ph.D., 1923. Instructor in Government, Columbia, 1913–17, 1919–23, Assistant Professor, 1923–26; Associate Staff Member, Brookings Graduate School of Economics and Government, 1926–27; Associate Professor of Government, Columbia, since 1927.

†McMurphy, James Ira Wilson (123) 144 Melville, P-p (PA 3853)
Associate Professor of Botany

A.B., Stanford, 1908, A.M., 1909. Assistant in Botany, University of Wisconsin, 1912–13. At Stanford since 1908.

†McNaught, Harvard Young (123) 2979 Lake, SF-sf (Evergreen 7330)
Associate Clinical Professor of Surgery (Otology, Rhinology, Laryngology)

M.D., C.M., Trinity University, 1897. Fellow by Examination, Trinity Medical College, 1897; Assistant, Ear, Nose, and Throat Clinic, Cooper Medical College, 1911–12. At Stanford since 1913.

†MacQuarrie, Thomas William (4) Greenside, San Jose-sj
Acting Professor of Education [(Ballard 6330W)

A.B., Stanford, 1922, A.M., 1923, Ph.D., 1924. Principal and Teacher in Elementary and Secondary Schools, 1900–1917; Captain, Infantry, U.S. Army, 1917–18, Major, 1918–19; Director of Vocational Education, Fourth Division, U.S. Army, 1920–21; Co-ordinator, U.S. Veterans' Bureau, Stanford, 1922–24; Professor of Education and Director of University College, University of Southern California, 1924–27; Acting Instructor in Education, Stanford, Summer Quarter, 1924, Acting Assistant Professor, Summer Quarter, 1928, Acting Professor, Summer Quarters, 1929, 1930; President, San Jose State Teachers College, since 1927.

†Macy, C. Ward (4) 1119 High, P* (PA 21073)
Acting Instructor in Economics

A.B., Grinnell, 1920; A.M., University of Iowa, 1923. University Scholar, Iowa, 1922–23; Royall Victor Fellow in Economics, Stanford, 1928–29; Instructor in Economics, Coe College, 1923–25, Assistant Professor, since 1925; Acting Instructor in Economics, Stanford, Summer Quarter, 1930.

†Madden, Joseph Warren (1234) 730 Bryant, P* (PA 21451)
Acting Professor of Law

A.B., University of Illinois, 1911; J.D., University of Chicago, 1914. Professor of Law, University of Oklahoma, 1914–16; Professor of Law, Ohio State University, 1917–21; Dean of College of Law and Professor of Law, West Virginia University, 1921–27; Professor of Law, University of Pittsburgh, since 1927; Visiting Professor of Law, University of Chicago, Summers, 1923, 1924, 1928, University of North Carolina, 1927, Cornell University, 1930.

Madvig, Elsbeth (Mrs.) (1234) 369 Lytton, P-*874*
Secretary, Geology

At Stanford since 1927.

†Maloney, Henry Wilfred (1234) 518 Governor's-*57* (PA 5913)
Director of Minor and Intramural Sports

Military Gymnastic School, Dublin (Ireland), 1899; Physical Instructor, British Army, 1899–1900; British War Service, South Africa, 1901–2; Gymnastic School,

Pasadena, 1904–8; Chairman, Executive Committee, University and Club (Soccer) Football League, since 1915; Captain and Athletic Officer, A.E.F., 1917–18; Track Coach and Trainer, U.S. Track Team, Inter-Allied Games, Paris, France, 1919; Trainer and Rugby Commissioner, Rugby Teams, Olympic Games, Antwerp, Belgium, 1920; President, California Rugby Union, since 1920; Western Representative, National (Soccer) Football Association, since 1922; Coach and Manager, Stanford's Australian Tennis Tour, Summer, 1924; Member, National A.A.U. Boxing Committee, 1925–27; President, Pacific Athletic Association of the A.A.U., 1925–27; President, Collegiate (Soccer) Football League, since 1926; Third Vice-President, National A.A.U., since 1929. At Stanford since 1908.

†Manning, William Albert (123) 649 Alvarado (PA 8536)
Professor of Mathematics

A.B., Willamette University, 1900; A.M., Stanford, 1902, Ph.D., 1904. Student, University of Paris, 1904–5. At Stanford since 1900.

†Manwaring, Wilfred Hamilton (1234) 364 Kingsley, P-*51* (PA 21228)
Professor of Bacteriology and Experimental Pathology

B.S., Michigan, 1895; M.D., Johns Hopkins, 1904. Fellow and Assistant in Pathology, University of Chicago, 1904–5; Associate Professor of Pathology and Bacteriology, Indiana University, 1905–7; Traveling Fellow, Rockefeller Institute, 1907–8, Wassermann's Laboratory, Berlin, 1907–8, Ehrlich's Laboratory, Frankfurt-am-Main, 1908–9, Physiological Institute, London, 1909–10; Assistant in Pathology, Rockefeller Institute, 1910–13; Lecturer in Functional Pathology, Washington University Medical School, 1920–21. At Stanford since 1913.

†Markee, Joseph Eldridge (123) 730 Everett, P* (PA 8101)
Assistant Professor of Anatomy

S.B., University of Chicago, 1925, Ph.D., 1929. Douglas Smith Fellow, University of Chicago, 1928–29. At Stanford since 1929.

Marshall, Helen (1234) 1476 Alvarado, Burlingame-b (B 2837W)
Instructor in Psychology and Psychiatry

A.B., Lake Erie, 1913; A.M., Ohio State, 1918. Research Assistant, Commonwealth Fund, Department of Psychology, Stanford, 1921–23; Assistant in Psychology and Neuro-Psychiatry Clinic, 1923–26. At Stanford since 1921.

†Martin, Ernest Gale (123) 770 Santa Ynez* (PA 4738)
Professor of Physiology

Ph.B., Hamline, 1897; Ph.D., Johns Hopkins, 1904. Assistant in Biology, Hamline University, 1896–97; Fellow in Physiology, Johns Hopkins University, 1902–3; Instructor in Physiology, Purdue University, 1904–6; Instructor in Physiology, Harvard University, 1906–10, Assistant Professor, 1910–16; Lecturer in Physiology, Simmons College, 1907–8, Sargent School of Physical Education, 1906–14; Assistant Professor of Physiology, Radcliffe College, 1914–16; Exchange Professor of Physiology, University of Toronto, Winter Quarter, 1927; Research Physiologist (temporary), U.S. Public Health Service, 1917–20; Member Sub-Committee on Industrial Fatigue, Advisory Commission to Council of National Defense, 1917; Captain, Sanitary Corps, U.S.A., 1918–19. At Stanford since 1916.

†Martin, Ernest Whitney (123) 525 Lincoln, P-*143* (PA 4558)
Professor of Classical Literature

A.B., Chicago, 1900; A.M., Stanford, 1902, Ph.D., 1910. Instructor in Latin and Greek, Private School, Clarinda (Iowa), 1895–96, Principal of High School, 1896–98; Student, University of Berlin and American School of Classical Studies, Rome, 1900–1901; Acting Professor of Latin and Greek, University of Nevada, 1908–9, Professor of Greek, 1909–10; Director, Stanford University Band, since 1911; Captain, U.S.A., Field Director, A.R.C., 4th Division, A.E.F., 1917–18; Major and Deputy Commissioner, A.R.C., Mission to Greece, 1919; Decorated with Cross of Officer of the Order of the Redeemer, by King Alexander, 1919; Awarded Military Cross of Merit, 2d Class, by Greek Government, 1919; Visiting Professor, Columbia University, Summer Session, 1929. At Stanford since 1901.

†Martin, Percy Alvin (234) 593 Salvatierra (PA 5843)
Professor of European History

A.B., Stanford, 1902, A.M., 1903; A.M., Harvard, 1907, Ph.D., 1912. Student, University of Paris, 1903–4, Universities of Berlin and Leipzig, 1907–8; Fellow, Harvard University, 1908; Professor of History and French, Whittier College, 1904–5; Lecturer in Latin-American History, Harvard University, 1915; Lecturer in South American History and Institutions, University of Washington, Summer Session, 1916; Albert Shaw Lecturer on American Diplomatic History, Johns Hopkins University, 1922; Professor of History, University of Hawaii, Summer Session, 1928. At Stanford since 1908.

†Marx, Guido Hugo (123) 356 Lincoln, P-*74* (PA 5814)
Professor of Machine Design

M.E., Cornell, 1893. With Gleason Tool Co., Rochester (N.Y.), 1893–94; with Bement, Miles & Co., Philadelphia, 1894–95; New School for Social Research, 1920. At Stanford since 1895.

†Masters, Alfred Richard (1234) 1504 Byron, P-*3006* (PA 8673)
General Manager, Board of Athletic Control

A.B., Stanford, 1924. At Stanford since 1925.

†Maynard, Merlin T. R. (1234) 604 S. Fifteenth, San Jose-sj
Assistant Clinical Professor of Medicine [(Ballard 7876)
(Cutaneous Diseases)

A.B., Stanford, 1919; M.D., Washington University (St. Louis, Mo.), 1922. Interne, Lane Hospital, 1922–23; Diplomate of National Board of Examiners, 1923; Assistant Visiting Dermatologist, San Francisco Hospital, 1924–25, Visiting Dermatologist, 1925–28; Consultant, Dermatology, U.S. Veterans' Diagnostic Center, Palo Alto; Consulting Dermatologist, Santa Clara County Hospital. At Stanford since 1924.

Meadowcroft, Allan James (123) 308 Sequoia-*1134* (PA 3121)
Acting Instructor in Civil Engineering

A.B., Stanford, 1926. Assistant Engineer, Turlock Irrigation District, California, 1927–28; Engineering Draftsman, Hetch Hetchy Water Supply of San Francisco, 1928–29; Junior Engineer, Division of Water Resources, State of California, 1929–30; Assistant Engineer, Bureau of Reclamation, Department of the Interior, 1930.

†Mears, Eliot Grinnell (123) 593 Gerona (PA 21224)
Professor of Geography and International Trade (Graduate School of Business)

A.B., Harvard, 1910, M.B.A., 1912. Secretary and Instructor, Harvard Graduate School of Business Administration, 1912–16; Chief, Foreign Service Division, and later American Trade Commissioner in the Near East, United States Bureau of Foreign and Domestic Commerce, Commercial Attaché to American High Commission in Turkey, 1916–20; Economist, Harbord Military Mission to Armenia and Transcaucasia, 1919; Secretary, The Survey of Race Relations, since 1924; Round Table Leader, Institute of International Relations, 1926–28, 1930; Member, Honolulu Conference, Institute of Pacific Relations, 1927; Visiting Professor, Institut Universitaire de Hautes Études Internationales, Geneva, 1929–30; Visiting Carnegie Professor to Universities in Near East, Austria, and Scotland, 1930. At Stanford since 1921.

Meherin, Joseph Minton (123) 76 Sea Cliff, SF-sf (Bayview 1737)
Clinical Instructor in Surgery

M.D., Harvard, 1922. Interne, San Francisco Hospital, 1922–23; Voluntary Assistant, Chirurg. Klinik, University of Halle-Wittenberg, May 1928–March 1930. At Stanford since 1923.

†Mehrtens, Henry George (1234) 2101 California, SF-sf
Professor of Medicine (Neuropsychiatry) [(Fillmore 6196)

B.S., California, 1911; M.D., Stanford, 1913. Senior House Officer, Lane Hospital, 1914–15; Assistant in Medicine (Neurology), Stanford, 1915–17; House Physician, Lane Hospital, since 1915. At Stanford since 1915.

MELSOME, RUTH MARIAN (123) 2340 Clay, SF-sf (West 8000)
Acting Instructor in Practice of Nursing
A.B., Stanford, 1929; Graduate, Stanford School of Nursing, 1929.

†MENSOR, MERRILL COLEMAN (123) 144 Clark Drive, San Mateo-sm
Assistant Clinical Professor of Surgery (Orthopedics) [(SM 4304)
M.D., California, 1923. Resident Surgeon, Shriners' Hospital for Crippled Children, San Francisco, 1923–24; Surgeon, San Francisco Emergency Service, 1924–26; Orthopedic Surgeon, Mary's Help Hospital, since 1924; Visiting Orthopedic Surgeon, Laguna Honda Home, since 1929. At Stanford since 1924.

MERRIAM, KATHARINE (123) 2420 Tasso, P-*936* (PA 21919)
Secretary to Dr. Davis, Food Research Institute
A.B., Mt. Holyoke, 1924. At Stanford since 1925.

MERRILL, MAUD AMANDA (123) 708 Salvatierra (PA 21736)
Assistant Professor of Psychology
A.B., Oberlin, 1911; A.M., Stanford, 1920, Ph.D., 1923. At Stanford since 1920.

†MESTRE, HAROLD (1234) 902 Colton, Monterey-Box 567, m
Assistant Professor of Biophysics (Hopkins [(Monterey 1973)
Marine Station)
A.B., California, 1923; Ph.D., Stanford, 1929. Teaching Fellow in Zoölogy, University of California, 1923–24, Assistant, 1924; Assistant Professor of Biology, Fresno State Teachers College, 1924–26, Associate Professor, 1926–27; University Fellow, Stanford, 1927–28. At Stanford since 1928.

†MEYER, ARTHUR WILLIAM (123) 121 Waverley, P* (PA 6726)
Professor of Anatomy
B.S., Wisconsin, 1898; M.D., Johns Hopkins, 1905. Assistant and Instructor in Anatomy, Johns Hopkins University, 1905–7; Assistant Professor of Anatomy, University of Minnesota, 1907–8; Professor of Anatomy, Northwestern University, 1908–9; Research Associate, Carnegie Institution, 1917–18. At Stanford since 1909.

MEYRICK, GERALDINE (1234) 128 Kingsley, P* (PA 6223)
Secretary to Dean of Summer Quarter
At Stanford since 1921.

†MICHAELIS, LEONOR (4) Hopkins Marine Station, Pacific Grove-pg
Acting Professor of Physiology
M.D., Berlin, 1896. Assistant, State Institute for Serum Research, Berlin, 1898–99; Interne Assistant, City Hospital, Berlin, 1899–1903; Assistant, Medical Clinic, Department for Cancer Research, 1903–7; Director, Biological Laboratory, City Hospital, Berlin, 1907–22; Privatdocent in Medicine, University of Berlin, 1905, Professor, 1908, Professor of Physical Chemistry applied to Medicine, 1920; Professor of Biochemistry, Medical School, Nagoya (Japan), 1922–26; Lecturer on Research Medicine, Johns Hopkins Hospital, 1926–29; Member, The Rockefeller Institute for Medical Research, since 1929.

MICHELSON, LEWIS (1234) Huntington Apts., SF-sf (Franklin 5400)
Assistant Clinical Professor of Obstetrics and Gynecology
M.D., Cooper Medical College, 1907. Student, Vienna, 1910–11; Special Worker, Brady Urological Institute, Johns Hopkins University, 1916–17; Instructor in Surgery (Genito-Urinary), Stanford, 1917–18; Director of Bureau of Social Hygiene, California State Board of Health, 1918–19; Urological Study, Vienna, Budapest, Geneva, Berlin, 1930. At Stanford, 1917–18, and since 1919.

[†MILES, WALTER RICHARD 607 Gerona (PA 5759)
Professor of Experimental Psychology]
B.S., Pacific College, 1906; A.B., Earlham, 1908; A.M., Iowa, 1910, Ph.D., 1913. Instructor in Psychology and Education, Penn College, 1908–10; Scholar in Education, University of Iowa, 1909–10, Fellow and Assistant in Psychology, 1910–12; Associate Professor of Psychology, Wesleyan University, 1913–14; Psychologist at

Nutrition Laboratory of Carnegie Institution of Washington, Boston (Mass.), 1914–22; Lecturer in Psychology, University of California, First Semester, 1925–26; Colver Medical Lecturer, Los Angeles, 1928. At Stanford since 1922.

†Miller, Stewart Franklin (123) 830 Lytton, P* (PA 22635)
Associate Professor of Military Science and Tactics

Graduate, Field Artillery School, Camp Knox (Ky.), 1922. Captain, Field Artillery, U.S. Army. At Stanford since 1930.

Mirrielees, Edith Ronald (123) 534 Lasuen-*926* (PA 5959)
Associate Professor of English

A.B., Stanford, 1907. At Stanford since 1909.

†Mitchell, John Pearce (1234) 235 Embarcadero, P* (PA 5714)
Registrar, and Professor of Chemistry

A.B., Stanford, 1903, A.M., 1904, Ph.D., 1909. Student, University of Leipzig, 1904–5. At Stanford, 1903–4, and since 1905.

[†Moore, Arthur Russell
Lecturer in General Physiology]

A.B., Nebraska, 1904; Ph.D., California, 1911. Assistant Professor of Physiology, California, 1911–13; Associate Professor, Bryn Mawr, 1913–16; Lecturer in Physiology, Woods Hole (Mass.), Summer Sessions, 1916–20; Professor of Physiology, Rutgers, 1916–26; Professor of General Physiology, University of Oregon, since 1926.

Moore, Myrtle (1234) Menlo Heights* (PA 6042)
Secretary to the Registrar

Ph.B., University of Chicago, 1922. At Stanford since 1925.

†Moreno, Halcott Cadwalader (123) 684 Mirada (PA 4436)
Professor of Engineering Mathematics

A.B., University of Georgia, 1893, A.M., 1894, B.L., 1896; Ph.D., Clark, 1900. Tutor in Mathematics, University of Georgia, 1893–97; Scholar and Fellow in Mathematics, Clark University, 1897–1900, Assistant in Mathematics, 1900–1901. At Stanford since 1901.

†Morgan, Theodore Harding (123) 243 Waverley, P-*2235* (PA 6250)
Assistant Professor of Electrical Engineering

A.B., Stanford, 1920, Engineer, 1929. Foreman, Foundation Company, Victoria (B.C.), 1917–19; Testing Engineer, Inspiration Consolidated Copper Company, Inspiration (Ariz.), 1920–21; Engineer, Great Western Power Company, San Francisco, 1921–22, and summers, 1923–26. At Stanford since 1922.

†Morris, Laird M. (123) 1900 Broadway, SF-sf (Walnut 3312)
Clinical Instructor in Medicine

M.D., California, 1916. Lieutenant, M.C., U.S.N., 1917–19; Assistant Resident Physician, Peter Bent Brigham Hospital, Boston, 1920; Assistant in Medicine, University of California Medical School, 1921–22, Instructor in Medicine, 1922–23. At Stanford since 1924.

†Morrison, Stanley (1234) 663 Lowell, P* (PA 6360)
Professor of Law

A.B., Yale, 1915; LL.B., Harvard, 1919. Law Secretary to Justice Oliver Wendell Holmes, United States Supreme Court, Washington (D.C.), 1919–20; in practice of law with McCutcheon, Olney, Mannon, and Greene, San Francisco, 1920–23. At Stanford since 1924.

†Morrissey, Edmund J. (123) 3032 Divisadero, SF-sf (Fillmore 0284)
Clinical Instructor in Surgery

A.B., St. Ignatius, 1917; M.D., California, 1922. Assistant Resident Surgeon, University of California Hospital, 1922–23; Resident Surgeon, Ruptured and Crippled Hospital, New York, 1923–24; Resident, Neuro-Surgery, Memorial Hospital, Richmond (Va.), 1924–25; Instructor, Medical College of Virginia, 1924–25; Assistant in Instruction, Surgery, Stanford, 1926–28. At Stanford since 1926.

†Moser, Charles (123) 441 Foothill Road* (PA 21135)
Professor of Civil Engineering, and Secretary of the Faculty of the School of Engineering

C.E., Ohio Northern University, 1902; A.B., Stanford, 1908. At Stanford since 1908.

†Muller, Siemon William (124) 1145 Webster, P-*655* (PA 22555)
Assistant Professor of Geology

A.B., Oregon, 1927; A.M., Stanford, 1929, Ph.D., 1930. Assistant in Instruction, Geology, Stanford, 1927–29, Instructor, 1929–30. At Stanford since 1927.

†Murray, Augustus Taber (14) 1019 Bryant, P-*1785* (PA 4226)
Professor of Classical Literature

A.B., Haverford, 1885; Ph.D., Johns Hopkins, 1890. Fellow in Johns Hopkins University, 1887–88; Professor of Greek, Earlham College, 1888–90; Student, Universities of Leipzig and Berlin, 1890–91; Professor of Greek, Colorado College, 1891–92; Federal Food Administrator for Northern Unit of Santa Clara County, California, 1918; Annual Professor in the American School of Classical Studies, Athens, 1922–23. At Stanford since 1892.

Murray, Katherine (1234) 1011 Fulton, P* (PA 7188)
Secretary, Psychology

At Stanford since 1918.

Murray, Margaret (1234) 1011 Fulton, P* (PA 7188)
Secretary to the Comptroller

At Stanford since 1916.

†Nagel, Gunther Willibald (1234) 481 Thirty-fifth Ave., SF-sf
Clinical Instructor in Surgery [(Evergreen 8755)

A.B., Stanford, 1917, M.D., 1921; M.Sc. (in Surgery), University of Minnesota, 1926. Senior Resident in Medicine, Stanford University Hospital, 1921–22; Fellow in The Association of Residents and Ex-Residents of The Mayo Clinic, since 1922; Resident Surgeon, St. Mary's Hospital, Rochester (Minn.), 1925–26; First Assistant to Dr. Judd, Rochester (Minn.), 1926–28; J. William White Fellow for European Study, 1928. At Stanford since 1928.

Nagel, Laura Ingeborg (1234) 1248 Waverley, P*
Recorder, Registrar's Office

A.B., Stanford, 1904, A.M., 1905. At Stanford, 1908–9, and since 1919.

Newcomb, Maude H. (123) 825 University, P-p (PA 8272)
Secretary to Alumni Secretary

At Stanford since 1927.

†Newell, Robert Reid (1234) 50 Yerba Buena, SF-sf (Overland 4994)
Associate Professor of Medicine (Radiology)

M.D., California, 1916. Assistant in Medicine, University of California Medical School, 1917. At Stanford since 1920.

Nicholls, Elizabeth G. (Mrs.) (123) 53 Palm, SF-sf (Evergreen 4252)
Clinical Instructor in Medicine

M.D., Johns Hopkins, 1923. Interne, Bellevue Hospital (Cornell Division), New York City, 1923–24; Assistant in Medicine, Johns Hopkins, 1925–26, Instructor, 1926–27. At Stanford since 1929.

†Niebel, Herbert Lee (123) 1455 Webster, P-p (PA 4227)
Examining Physician, Men Students' Health Service

A.B., Stanford, 1914, M.D., 1923. At Stanford since 1927.

†van Niel, Cornelis Bernardus (1234) Monte Verde, Carmel*
Associate Professor of Microbiology [(Carmel 726)
(Hopkins Marine Station)

Chem. Eng., Delft (Holland), 1923, D.Sc., 1927. Conservator, Laboratory for Microbiology, Delft, 1923–28. At Stanford since 1929.

†Nielson, Sigvald (1234) 120 Park, P* (PA 22654)
Associate Professor of Law

A.B., Alberta, 1922, LL.B., 1924; J.D., Stanford, 1929. Lecturer in Law, University of Alberta, 1925–26, Assistant Professor of Law, 1926–28. At Stanford since 1929.

†Niles, Alfred Salem (123) 827 Lincoln, P* (PA 21759)
Professor of Aëronautic Engineering

A.B., Johns Hopkins, 1915; B.S., Massachusetts Institute of Technology, 1917; B.S., Harvard, 1917. Assistant in Civil Engineering, Massachusetts Institute of Technology, 1917–18; Chief of Structures Branch, Airplane Section, Engineering Division, U.S. Army Air Service, 1921–27. At Stanford since 1927.

†Noller, Carl Robert (123) Delmonte Ave., Los Altos*
Assistant Professor of Chemistry

B.S., Washington University, 1922, M.S., 1923; Ph.D., University of Illinois, 1926. Instructor in Chemistry, University of Illinois, Summer Session, 1926; Instructor in Chemistry, Northwestern University, 1926–27; Chemist, Chemical Plant Laboratory, Eastman Kodak Co., Rochester (N.Y.), 1927–28, Department of Synthetic Chemistry, 1928–29. At Stanford since 1929.

†Notter, Harley Arthur (3) 257 Hawthorne, P*
Acting Instructor in Citizenship

A.B., College of Puget Sound, 1925; A.M., Stanford, 1927. Teacher and Principal, Secondary Schools, Washington and Oregon, 1925–30; Assistant in History, Stanford, 1926–27; Supervisor of Teacher-Training, University of Oregon, 1928–30.

Nye, Helena May (123) 281 Addison, P* (PA 21646)
Instructor in German

A.B., Stanford, 1905, A.M., 1908. At Stanford since 1921.

†Olsen, Louis S. (4) 321 Fulton, P-p (PA 6767)
Acting Instructor in Public Health Administration

A.B., Stanford, 1914, Engineer, 1915. Health Officer, Palo Alto, since 1917.

†O'Neill, Arthur Aloysius (123) 756 Page, SF-sf (Hemlock 2361)
Assistant Clinical Professor of Medicine

M.D., Cooper Medical College, 1891. Assistant Surgeon, Cooper Medical College Clinic, 1893; Assistant in Diseases of the Skin, San Francisco Polyclinic, 1902–7; in charge of Isolation and Plague Hospitals, 1907–10, of Isolation Hospital, 1912–17; City Physician, San Francisco, since 1917; Surgeon, U.S.P.H. Reserve, Consultant, Communicable Diseases, 1919. At Stanford since 1913.

Ophüls, Louise (12) 2156 Pacific, SF-sf (Walnut 5255)
Librarian, Lane Medical Library

At Stanford since 1910.

†Ophüls, William (234) 2398 Sacramento, SF-sf (Walnut 1741)
Dean of the School of Medicine, and Professor of Pathology

M.D., University of Göttingen, 1895. Assistant at the Pathologic Institute at Göttingen, 1896–97; Professor of Pathology and Bacteriology, University of Missouri, 1897–98; Professor of Pathology and Bacteriology, Cooper Medical College, 1898–1912; Pathologist, Lane Hospital, since 1898; Instructor in Pathology, Training School for Military Officers, U.S.A., March to December 1918. At Stanford since 1909.

†Osborn, Clarence Gladden (123) 741 Columbia, P-Station A, p
Instructor in History [(PA 21889)

A.B., Stanford, 1926, A.M., 1927. Acting Instructor in Citizenship, Stanford, 1927–28; Instructor in History, San Diego State Teachers College, 1928–29; Instructor in Citizenship, Stanford, 1929–30. At Stanford, 1927–28, and since 1929.

†Osborne, George Edward (234) 669 Cabrillo* (PA 6266)
Professor of Law

A.B., California, 1916; LL.B., Harvard, 1919, S.J.D., 1920. Assistant Professor of Law, West Virginia University, 1920–21; Acting Assistant Professor of Law, Stanford University, Summer Quarter, 1921; Assistant Professor of Law, University of Minnesota, 1921–23; Acting Professor of Law, Columbia University, Summer Session, 1923, Chicago, Summer Quarter, 1927. At Stanford since 1923.

Ostroff, Robert Allison (123) 1007 Sutter, SF-sf (Franklin 5078)
Clinical Instructor in Surgery

A.B., Nevada, 1915; M.D., Stanford, 1919. Interne, San Francisco Hospital, 1917–18; Senior Interne in Surgery, Lane Hospital, 1918–19. At Stanford since 1923.

Owen, Lillian Caroline (1234) 553 Salvatierra* (PA 21360)
Secretary, Graduate School of Business

A.B., Stanford, 1920. Executive Assistant to Appointment Secretary, Stanford University, 1922–25. At Stanford since 1922.

Owens, William (1234) 630 Lincoln, P-p
Stack Supervisor, University Library

At Stanford since 1921.

†Owens, William Brownlee (123) 593 Alvarado (PA 3642)
Professor of Law, and Faculty Representative on Pacific Coast Intercollegiate Athletic Conference

LL.B., Stanford, 1915. At Stanford, 1915–16, and since 1920.

†Palmateer, Theron Josiah (123) 1028 Cowper, P-p (PA 5459)
Teaching Specialist in Machine Shop Practice

Apprentice with Sibley & Ware, South Bend (Ind.); Journeyman Machinist, 1896–1905, with R. Hoe & Co., New York, Columbus Machine Works, Columbus (Ohio), Elms Engineering Works, Chicago, Western Gas Engine Works, Mishawaka (Ind.), Webster Iron Works, Bakersfield, R.S. Hunkins, San Jose. At Stanford since 1904.

Palmer, Caroline Bell (123) 2557 Clay, SF-sf (Walnut 5517)
Associate Clinical Professor of Surgery (Anesthetics)

M.D., Cooper Medical College, 1906. Chief Anesthetist, Lane Hospital, since 1909. At Stanford since 1916.

Palmer, Dwight Livingstone (3) 440 Melville, P-p (PA 8633)
Acting Instructor in Citizenship

A.B., Pomona, 1925; A.M., Chicago, 1926. Instructor in Economics, Beloit College, 1928–30.

†Park, Charles V. (1) 1080 Emerson, P-p (PA 3432)
Assistant Librarian

A.B., Stanford, 1909. Certificate, New York Public Library, Library School, 1915. At Stanford since 1909.

†Parks, George Sutton (124) 665 Alvarado (PA 6572)
Associate Professor of Chemistry

B.S., Washington, 1915, M.S., 1916; Ph.D., California, 1919. Instructor in Chemistry, California Institute of Technology, 1919–20. At Stanford since 1920.

Parrott, James Clifford (123) 2201 Francisco, SF-sf (Fillmore 8474)
Assistant Clinical Professor of Pediatrics

M.D., Stanford, 1920. At Stanford since 1927.

†Patchett, Ulysses Arnold (1234) 1854 Bryant, P* (PA 7598)
Instructor in Mechanical Engineering

B.S., University of California, 1925, M.S., 1926. Assistant in Mechanical Engineering, University of California, 1926–27; Automotive Research Engineer, with the Union Oil Company of California, Wilmington, 1929. At Stanford since 1927.

†Patrick, David Lyall (123) 865 Cambridge, MP-mp (PA 8365)
Instructor in English

A.B., Iowa, 1923; A.M., Stanford, 1926. Instructor in English, University of Iowa, 1926–28; Fellow in English, Stanford, 1928–30. At Stanford since 1930.

†Peirce, George James (123) 281 Embarcadero, P-65 (PA 5856)
Professor of Botany and Plant Physiology

S.B., Harvard, 1890; A.M., and Ph.D., Leipzig, 1894. Assistant in Botany, Harvard University and Radcliffe College, 1890–92; Parker Fellow in Harvard University, studying in Bonn, Leipzig, and Munich, 1892–94; Assistant Professor of Botany, Indiana University, 1895–97; Acting Professor of Botany, University of Wisconsin, Second Semester, 1910–11. At Stanford since 1897.

†Pettit, Albert Victor (1234) 71 Twenty-second Ave., SF-sf
Assistant Clinical Professor of Obstetrics and Gynecology [(Evergreen 0410)

A.B., Stanford, 1915, M.D., 1919. Senior Interne, Obstetrics and Gynecology, Lane Hospital, 1919–20, Resident, 1920–21, Chief of Women's Clinic, 1921–25; Assistant Visiting Obstetrician and Gynecologist, San Francisco Hospital, 1926–29, Visiting Obstetrician and Gynecologist, since 1929. At Stanford since 1920.

†Pierson, Philip Hale (1234) 3481 Washington, SF-sf (Fillmore 4931)
Associate Clinical Professor of Medicine (Tuberculosis), and Consultant in Tuberculosis (Pediatrics)

A.B., Yale, 1908; M.D., Harvard, 1913. House Officer, Massachusetts General Hospital, 1914–15. At Stanford since 1916.

†Pischel, Dohrmann Kaspar (123) 1815 California, SF-sf (Ordway 5698)
Clinical Instructor in Surgery (Ophthalmology)

A.B., California, 1918; M.D., Stanford, 1923. Assistant Visiting Otolaryngologist, San Francisco Hospital, 1923–24; Hospitant, University Eye Clinic, Vienna, 1924–26; Assistant Ophthalmologist, University of California, 1926–28. At Stanford since 1928.

Porter, Elsie Stuart (1234) 1435 Tasso, P* (PA 5640)
Assistant Director (Stanford Union)

At Stanford since 1930.

Potter, Margaret (1234) 15 Mesa, Piedmont-p (Humboldt 6397)
Cataloguer, Lane Medical Library

B.S., California, 1914. At Stanford since 1919.

Pound, Louise (4) 534 Lasuen
Acting Professor of English

A.B., University of Nebraska, 1892, A.M., 1895; Ph.D., Heidelberg, 1900; Litt.D., Smith, 1928. Fellow in English Literature, University of Nebraska, 1894–97, Instructor, 1897–99, Adjunct Professor, 1900–1906, Assistant Professor, 1906–8, Associate Professor, 1908–12, Professor, since 1912; Instructor, Summer Sessions, University of California, 1922, Linguistic Institute, Yale, 1928, University of Chicago, 1929, Columbia University, 1930.

Pouppirt, Pearl Sylva (123) 2090 Green, SF-sf
Clinical Instructor in Medicine (Neuropsychiatry)

A.B., Stanford, 1921, M.D., 1926. Resident, Neuropsychiatry, Stanford University Hospital. At Stanford since 1927.

†Powers, Robert Allen (1234) 2331 South Court, P* (PA 5834)
Roentgenologist, School of Hygiene and Physical Education

M.D., Hahnemann Medical College of the Pacific, 1917. At Stanford since 1930.

†Preston, Howard Hall (4) 7 Sandhill Road, MP* (PA 21586)
Acting Professor of Economics

B.S., Coe, 1911; A.M., Iowa, 1914; Ph.D., 1920. Instructor in Economics, Iowa, 1915–16; Instructor in Economics, Texas, 1916–17; Assistant Professor of Eco-

nomics, Oberlin, 1917–20; Associate Professor of Business Administration, Washington, 1920–22, Professor, since 1922; Lecturer in Economics, University of California, Second Semester, 1922; Lecturer, University of Iowa, Summer Quarters, 1921, 1923; Lecturer in Economics, University of Chicago, Summer Quarter, 1924; Lecturer in Economics, University of Texas, Summer Quarter, 1925; Lecturer in Business Administration, University of Michigan, Summer Quarter, 1928.

†PROCTOR, WILLIAM MARTIN (1234) 747 Dolores (PA 3223)
Professor of Education

A.B., Whitman, 1901; A.M., Stanford, 1916, Ph.D., 1919. Teacher of History and Civics, Cheney (Wash.) State Normal School, 1909–10; Professor of Education, Pacific University, Forest Grove (Ore.), 1911–15, Dean of Faculty, 1914–15; Lecturer, Harvard Summer Session, 1922; Lecturer in Secondary Education, Harvard University, 1923–24; Lecturer, Summer Sessions, Columbia University, 1924, University of Minnesota, 1925, University of Washington, 1927, University of Southern California, 1929. At Stanford since 1916.

†PROESCHER, FREDERICK (123) Agnew State Hospital, Agnew-a
Lecturer in Therapeutics [(Ballard 1728)

M.D., University of Basel, 1899. Assistant, Institut für experimentelle Therapie, Frankfort (Germany), 1900–1902; Chief Bacteriologist, Hoechst Farbenfabrik, 1903–4; Postgraduate work, Pathological Institutes of Berlin and Vienna, Pasteur Institute, Paris, 1903–4; Pathologist, Mercy Hospital, Pittsburgh, 1906–7; Pathologist, Allegheny Hospital, Pittsburgh, 1907–13; Physician-in-Chief to Pittsburgh City Hospital, 1913–14; Chief, Pathological Laboratory, and Captain, U.S.A., Camp Sherman, 1917–18; Pathologist, Agnew State Hospital, since 1922.

PUTNAM, DOROTHY (1234) 625 Guinda, P* (PA 6225)
Secretary, School of Education

A.B., Stanford, 1916. Assistant in History, Stanford University, 1916–17. At Stanford since 1916.

PUTNAM, WILLIAM CLEMENT (2) 715 Salvatierra-*1383* (PA 7444)
Acting Instructor in Geology

A.B., Stanford, 1929, A.M., 1930. Geologist, Associated Oil Company, 1930.

†RADIN, MAX (4) 6 Stanford Union* (PA 3121)
Acting Professor of Law

A.B., College of the City of New York, 1899; LL.B., New York University, 1902; Ph.D., Columbia University, 1909. Instructor in Roman and Civil Law, College of the City of New York, 1917–19; Instructor in History, Columbia, 1918–19; Professor of Law, University of California, since 1919.

§RAGAN, FRANK ALLISON (1)
Acting Instructor in Tennis

Director of Sports, Casa del Rey Hotel, Santa Cruz, Summer, 1927; Professional Tennis, California Tennis Club, San Francisco, 1927–29; Instructor in Tennis, Dominican College, 1927–29.

†RALSTON, JACKSON HARVEY (1) 1055 Cowper, P-p (PA 3831)
Lecturer in Political Science

LL.B., Georgetown University Law School, 1876; LL.D., National University Law School, 1897. Professor of Law, National University Law School, 1888–1907; American Agent, United States vs. Mexico, Pious Fund Case, Hague Permanent Court of Arbitration, 1902; Umpire, Italian-Venezuelan Mixed Claims Commission, 1903; American Counsel, United States vs. Peru, Landreau Case, London, 1924, before United States–Peruvian Commission.

RATHBUN, HARRY JOHN (123) 2 Stanford Union-*2171* (PA 4990)
Associate Professor of Law

A.B., Stanford, 1916, Engineer, 1920, J.D., 1929. At Stanford since 1929.

§ Deceased, January 3, 1931.

RAWLINS, AUBREY GATLIFF (123) Olympic Club, SF-sf (Prospect 4400)
Clinical Instructor in Surgery (Otology, Rhinology, Laryngology)

A.B., Stanford, 1921, M.D., 1925. Interne, Stanford Hospital, 1924–25; House Officer in Oto-rhino-laryngology, San Francisco Hospital, 1925–27; Aurist, Southern Pacific Hospital; Assistant Visiting Oto-rhino-laryngologist, San Francisco Hospital and Visiting Oto-rhino-laryngologist, Laguna Honda Home; Assistant in Instruction, Surgery, Stanford, 1926–28. At Stanford since 1926.

†RAY, JAMES CHANDLER (123) 1628 Emerson, P* (PA 6882)
Research Associate in Geology

A.B., Stanford, 1913, A.M., 1914, Ph.D., 1929. At Stanford since 1930.

†READ, JAY MARION (123) 1461 Seventeenth Ave., SF-sf (Montrose 2219)
Associate Clinical Professor of Medicine

B.S., California, 1912, M.S., 1913; M.D., Stanford, 1915. Assistant, Stanford Medical Service, San Francisco Hospital, since 1916; Captain, M.R.C., U.S.A., August 1917 to January 1919. At Stanford since 1916.

†REED, JAMES (2) 1880 Jackson, SF-sf (Ordway 4895)
Lecturer in Industrial Management (Graduate School of Business)

Graduate, U.S. Naval Academy, 1902. Shop Superintendent, Philadelphia Navy Yard, 1907–9; Inspector of Materials, U.S. Navy Eastern District, 1909–10; Special duty furthering American trade in Latin America (under State Department), 1911; Assistant Director of Public Works, Philadelphia, 1912–13; New Work Superintendent, Mare Island Navy Yard, 1914–20; Lecturer in Scientific Management, University of California, 1918; Assistant to President, Los Angeles Shipbuilding and Dry Dock Company, 1920–22; Consulting practice, Los Angeles, 1922–25; General Works Manager, Celite Corporation, Lompoc and Redwood City Plants, 1925–28; General Manager, Schlage Lock Company, San Francisco, 1929–30.

†REHFISCH, JOHN MORSE (12) 1940 Scott, SF-sf (Fillmore 3639)
Assistant Clinical Professor of Medicine (Radiology)

M.D., University of California, 1915. Assistant in Pathology, University of California, 1915–17, Instructor in Medicine, 1919–23. At Stanford since 1927.

†REICH, WILLIAM WALTER (123) 47 Poplar, Berkeley-b (Ashberry 5139)
Assistant Clinical Professor of Public Health and Preventive Medicine

A.B., University of the Philippines, 1917, B.S., 1919; A.M., University of California, 1921, Ph.D., 1923; M.D., Stanford, 1929. Assistant in Chemistry, University of the Philippines, 1916–17, Assistant and Instructor in Mathematics, 1917–19; Assistant and Instructor in Bacteriology and Pathology, University of California, 1920–23; Director, Clinical Laboratory, Oakland, 1924–27. At Stanford since 1927.

†REICHERT, FREDERICK LEET (123) 15 Seventh Ave., SF-sf (Skyline 4804)
Professor of Surgery

Ph.B., Franklin and Marshall College, 1916; M.D., Johns Hopkins University, 1920. Research Fellow, Hunterian Laboratory of Experimental Surgery, 1920–21; Assistant Resident Surgeon, Johns Hopkins Hospital, 1921–24, Resident Surgeon, 1924–26, Instructor in Surgery, 1922–26; Associate Professor of Surgery, Stanford University School of Medicine, 1926–30. At Stanford since 1926.

†REID, ELLIOTT GRAY (123) 498 Amherst, P* (PA 3437)
Professor of Aërodynamics

B.S., Michigan, 1922, M.S., 1923. With National Advisory Committee for Aëronautics, Langley Field, 1922–27. At Stanford since 1927.

†REINHARDT, KURT FRANK (1234) 1190 Hamilton, P-p (PA 3947)
Assistant Professor of German

Ph.D., Freiburg, 1922. Student, University of Munich (Bavaria), 1916–18, University of Heidelberg (Germany), 1919–20; Faculty, University Extension, Freiburg, 1922–24, Zürich (Switzerland), 1925–26; Editor, Freiburg and Zürich; Correspondent, Canada, 1927–28; Assistant Professor, University of Oregon, 1928–30. At Stanford since 1930.

REMELE, MIRIAM FRANCES (1234) 367 Addison, P* (PA 21352)
Editorial Secretary, Registrar's Office

At Stanford since 1920.

RETHWILM, LORRULI ANNA (123) 2217 Webster, SF-sf (West 0399)
Clinical Instructor in Surgery (Anesthesia)

A.B., Washington University, 1913; M.D., Stanford, 1917. Assistant in Surgery, Stanford, 1921–27. At Stanford since 1921.

†REYNOLDS, CHARLES NATHAN (123) 611 Alvarado (PA 4992)
Associate Professor of Sociology (Economics)

A.B., University of Oregon, 1913, A.M., 1922; Ph.D., Stanford, 1927. Instructor in Sociology, University of Oregon, 1923–25; Instructor in Citizenship and Economics, Stanford, 1925–27; Acting Instructor in Education, University of California, Intersession, 1926; Acting Professor of Sociology, University of Oregon, Summer Sessions, 1927, 1929; Professor of Economics, University of Hawaii, 1927–28. At Stanford, 1925–27, and since 1928.

†REYNOLDS, LEON BENEDICT (123) 853 Middlefield, P-*1826* (PA 7130)
Professor of Hydraulic and Sanitary Engineering

A.B., Hillsdale, 1906; A.B., Stanford, 1909. Student, Cornell University, 1911–12; Assistant Engineer, Burns & McDonnell, Kansas City (Mo.), 1909–11, 1912–19; Member of firm, Burns & McDonnell Engineering Co., Kansas City (Mo.), 1920–23. At Stanford since 1923.

†REYNOLDS, LLOYD ROBINSON (123) *2762* Filbert, SF-sf (Walnut 0619)
Clinical Instructor in Surgery (Genito-Urinary)

A.B., Stanford, 1915, M.D., 1920. Assistant in Surgery, Stanford Medical School, 1921–22; Fellow in Surgery, Peter Bent Brigham Hospital, Boston, 1923. At Stanford since 1921.

†RICH, WILLIS HORTON (123) 1966 Cowper, P* (PA 7891)
Professor of Zoölogy

B.S., Lombard, 1905; A.B., Stanford, 1909, A.M., 1918, Ph.D., 1924. Instructor in Biology, University of Southern California, 1907–8; Teaching Assistant in Zoölogy, Stanford, 1909–10, 1916–18; with California Fish and Game Commission, 1910–13; Scientific Assistant, U.S. Bureau of Fisheries, 1914–22; Teaching Assistant in Physiology, Stanford, 1916–18; Chief of Division of Inquiry, 1922–26; Chief Investigator, Salmon Fisheries, 1926–29; in charge, Pacific Fishery Investigations, 1929–30; Member, International Committee for Marine Fishery Investigation, 1922–26; Member, Pacific Salmon Investigation Federation, since 1926; Member, United States Subcommittee on the Oceanography of the Pacific, Pacific Science Congress, since 1926; Member, Committee on Agriculture, National Research Council, since 1927. At Stanford, 1909–10, 1913–14, 1916–18, and since 1927.

†RICHTMYER, FLOYD KARKER (4) 582 Alvarado* (PA 4653)
Acting Professor of Physics

A.B., Cornell, 1904, Ph.D., 1910. Instructor in Physics, Drexel Institute, 1904–6; Instructor in Physics, Cornell, 1906–10, Assistant Professor, 1910–18, Professor, since 1918, Dean of Graduate School, since 1931; Physicist, U.S. Bureau of Standards, Summer, 1915; Investigator, General Electric Research Laboratory, 1919–20; Acting Professor of Physics, University of California, Summer Session, 1923, Stanford, Summer Quarter, 1925; Columbia University, Summer Session, 1929; Chairman, Division of Physical Sciences, National Research Council, since 1930.

RICKER, CHRISTINE ISABELLE (1234) 615 Lasuen-*1069* (PA 8206)
Director of Dining Halls and Stanford Union

B.S., Simmons College, 1917. At Stanford since 1922.

†ROBBINS, CARL BURTON (123) 625 Lasuen (PA 21583)
Associate Professor of Economics

A.B., Stanford, 1924, A.M., 1925; M.B.A., Harvard, 1927; Ph.D., Stanford, 1928. At Stanford since 1927.

†Robinson, Edgar Eugene (124) 591 Salvatierra* (PA 21220)
Margaret Byrne Professor of American History, and Director of Citizenship

A.B., Wisconsin, 1908, A.M., 1910. Assistant in History, University of Wisconsin, 1908–9, Fellow in American History, 1909–10; Assistant Professor of History, Carleton College, 1910–11; Instructor in History, University of Minnesota, Summer Session, 1912, Resident Lecturer, 1915–16; Assistant Professor of History, University of Michigan, Summer Session, 1916; Assistant Educational Director, S.A.T.C., 1918; Visiting Professor of American History, Yale University, 1919–20; Lecturer in American History, University of California, 1924; Professor of History, Columbia University, Summer Session, 1926. At Stanford since 1911.

†Rodin, Frank H. (1234) 2205 Sacramento, SF-sf (Walnut 0797)
Clinical Instructor in Surgery (Ophthalmology)

A.B., Manitoba, 1916, M.D., C.M., 1920. Interne, St. Boniface General Hospital, 1918–19; House Surgeon, Winnipeg General Hospital, 1919–20; Eye, Ear, Nose, and Throat Clinics, Washington University, 1923–24; Senior Interne, Lane Hospital, 1924–26; Consultant in Ophthalmology and Otology, San Francisco Board of Health, since 1925; Chief of Ophthalmology, Mt. Zion Clinic and Hospital. At Stanford since 1924.

†Roelofs, Howard Dykema (23) 1256 College, P*
Associate Professor of Philosophy

A.B., Michigan, 1915, A.M., 1916; Ph.D., Harvard, 1925. Fellow in Philosophy, Michigan, 1916–17, Instructor in Rhetoric, 1921–23; Assistant in Philosophy, Harvard, 1924–25; Assistant Professor of Philosophy, University of California at Los Angeles, 1925–27. At Stanford since 1927.

†Rogers, Austin Flint (123) 549 Salvatierra-*87* (PA *7727*)
Professor of Mineralogy

A.B., Kansas, 1899, A.M., 1900; Ph.D., Columbia, 1902. Assistant in Mineralogy, University of Kansas, 1898–1900; Assistant Geologist, University Geological Survey of Kansas, 1898–1900, 1903; Fellow in Mineralogy, Columbia University, 1900–1902, Tutor in Mineralogy, 1902–5. At Stanford since 1905.

[†Rogers, William Lister 703 A, Hayward-h (Hayward 210J)
Clinical Instructor in Surgery (San Francisco Hospital)]

A.B., Stanford, 1923, M.D., 1926. At Stanford since 1927.

Rooney, Margaret (1234) 949 Webster, P-*2155* (PA 5407)
Secretary, Food Research Institute

At Stanford since 1925.

†Root, Winfred Trexler (4) 619 Lasuen* (PA 21192)
Acting Professor of History

A.B., Princeton, 1902; Ph.D., University of Pennsylvania, 1908. Harrison Fellow in History, University of Pennsylvania, 1907–8; Instructor in History, University of Wisconsin, 1908–11, Assistant Professor, 1911–15, Associate Professor, 1915–19, Professor, 1919–25; Professor of History and Head of Department of History, University of Iowa, since 1925; Visiting Professor, University of Chicago, Summer Quarter, 1917, University of Michigan, Summer Session, 1919, Harvard University, Summer, 1923; Member, Executive Council, American Historical Association, 1928–30; Member, Executive Council, Mississippi Valley Historical Association, since 1930.

†Ross, Chester J. (1234) 5915 Shafter, Oakland-o (Olympic 2533)
Assistant Superintendent, Lane and Stanford Hospitals

At Stanford since 1917.

†Ross, Perley Ason (124) 1830 Cowper, P* (PA 6645)
Professor of Physics

A.B., Stanford, 1908, A.M., 1910, Ph.D., 1911. Acting Professor of Physics, Cornell, 1926-27. At Stanford since 1908.

†Roth, Almon Edward (123) 462 Santa Teresa* (PA 6901)
Comptroller

A.B., Stanford, 1909, J.D., 1912. At Stanford since 1919.

†Roth, Earl Frederick (123) 149 Edgewood, P* (PA 7724)
Assistant Medical Adviser of Men in Charge of Athletes

A.B., Stanford, 1915, M.D., 1921. At Stanford since 1927.

†Rowell, Chester Harvey (3) 149 Tamalpais Road, Berkeley-b
Lecturer in Political Science (International Relations) [(Ashberry 2200)

Ph.B., University of Michigan, 1888. Graduate Student, University of Michigan, 1888–89; Student, University of Halle, University of Berlin, 1892–95; Regent, University of California, since 1913.

Rowland, Mary De (1234) 326 Addison, P-*867* (PA 21546)
Secretary, Lower Division

At Stanford since 1923.

†Rudolph, Walter Morrow (123) 281 Stanford, P-Station A, p
Instructor in Citizenship

B.S. (in Economics), Pennsylvania, 1923; A.M., Southern California, 1927. Instructor in Business Administration, Heidelberg College (Ohio), 1923–24; Instructor in Finance, University of Southern California, 1925–29; Assistant in Economics, University of Virginia, 1929–30. At Stanford since 1930.

Russell, Frances Theresa (Mrs.) (134) 534 Lasuen-*102* (PA 5956)
Associate Professor of English

Ph.B., State University of Iowa, 1895; Ph.D., Columbia, 1920. Graduate Student, Radcliffe College, 1898–99. At Stanford since 1906.

†Ryan, Harris Joseph (123) 525 Embarcadero, P-*K* (PA 4827)
Professor of Electrical Engineering

M.E., Cornell, 1887; LL.D., California, 1925. With Western Engineering Co., Lincoln (Neb.), 1887–88; Instructor in Physics, Cornell University, 1888–89, Assistant Professor of Electrical Engineering, 1889–92, Associate Professor, 1892–95, Professor, 1895–1905; Judge, Board of Awards, World's Fair, Chicago, 1893; U.S. Government Delegate, International Electrical Congress, St. Louis Exposition, 1904; Consulting Electrical Engineer, Los Angeles Aqueduct Power Project, 1909–23; President, American Institute of Electrical Engineers, 1923–24. At Stanford since 1905.

†Ryfkogel, Henry Anthon Lewis (123) 23 Belmont, SF-sf
Lecturer on Surgery (San Francisco Hospital) [(Lockhaven 2747)

M.D., California, 1894. Instructor in Anatomy, University of California, 1894–98, in Clinical Pathology, 1898–1900, in Bacteriology, 1900–1906, in Surgical Pathology, 1906–7; Surgical Chief, San Francisco Polyclinic, and Visiting Surgeon, San Francisco Hospital, since 1904. At Stanford since 1919.

Sahyun, Melville (4) 611 Waverley, P-p (PA 8474)
Acting Research Associate, Food Research Institute

A.B., American University, 1916; A.M., Stanford, 1929, Ph.D., 1931.

Santes, Marie (1234) 513 Salvatierra-*1274* (PA 8953)
Cataloguer

A.B., Carleton, 1911; B.L.S., New York State Library School, 1926. High School Teacher, 1911–13; Student, New York State Library School, 1916–18; Temporary Assistant, Newark (N.J.), Free Public Library, Summer, 1917; Cataloguer, University of Minnesota Library, 1918–23. At Stanford since 1923.

†Savery, William (4) Cardinal Ct., P*
Acting Professor of Philosophy

A.B., Brown University, 1896; A.M., Harvard, 1897, Ph.D., 1899. Professor of Philosophy, Fairmount College, 1900–1902; Professor of Philosophy and Chairman of Department of Philosophy, University of Washington, since 1902; Acting Professor of Philosophy, Summer Sessions, Harvard, 1923, University of California, 1924, 1930, University of California at Los Angeles, 1925, University of Oregon, 1927, University of Pennsylvania, 1929.

†Scarborough, Robert Alexander (123) 2241 Jackson, SF*
Instructor in Surgery [(Fillmore 3543)

B.S., Wesleyan University, 1922; M.D., Yale, 1926. Interne and Assistant Resident Surgeon, Strong Memorial Hospital, Rochester (N.Y.), 1926–28; Assistant Resident Surgeon, Lane Hospital, 1928–29, Resident Surgeon, 1929–30. At Stanford since 1928.

†Scattergood, Ezra Frederick (123) 524 Muirfield Rd., Los Angeles-la
Lecturer in Electrical Engineering [(Oregon 2205)

B.S., Rutgers, 1893, M.S., 1896; M.M.E., Cornell, 1899; Sc.D., Rutgers, 1931. Instructor in Mathematics and Electrical Science, Rutgers; Fellow in Electrical Engineering, Cornell; Professor of Electrical Engineering, Georgia School of Technology; Consulting Electrical Engineer, Los Angeles; Chief Electrical Engineer and General Manager, Bureau of Power and Light of the City of Los Angeles, since 1909.

†Schall, Myron Reed (1234) 1027 High, P* (PA 5354)
Instructor in Physical Education and Hygiene

A.B., Stanford, 1927. At Stanford since 1927.

†Schaller, Walter Frank (123) 164 Sea Cliff, SF-sf (Evergreen 5614)
Clinical Professor of Medicine (Neurology)

M.D., Cooper Medical College, 1902. Assistant in Pathology, Cooper Medical College, 1905–6; Assistant Surgeon, U.S.N., 1906–8; Student, Paris, Berlin, Vienna, Karlsruhe, 1909–11; P.A. Surgeon, U.S.N.R.F., June to December 1917 and October 1918 to 1926. At Stanford since 1911.

†Schaupp, Karl Ludwig (123) 45 Walnut, SF-sf (Fillmore 0921)
Associate Clinical Professor of Obstetrics and Gynecology

A.B., Stanford, 1913, M.D., 1916. First Lieutenant, M.R.C., U.S.A., August to December 1918; Visiting Obstetrician, San Francisco Hospital, since 1919; Visiting Gynecologist, San Francisco Hospital, since 1923; Obstetrician, Franklin Hospital; Director, Out-Patient Obstetrics for City of San Francisco. At Stanford since 1918.

†Schenck, Hubert Gregory (123) 1826 Waverley, P-*1583* (PA 6555)
Assistant Professor of Geology

A.B., Oregon, 1922, A.M., 1923; Ph.D., California, 1926. Associate in Paleontology, University of California, 1923–24. At Stanford since 1924.

†Schilling, Walter (123) 2500 Steiner, SF-sf (Walnut 6250)
Clinical Instructor in Medicine

A.B., California, 1919, A.M., 1920; M.D., Harvard, 1924. Senior Interne in Neuropsychiatry, Lane Hospital, 1924–25, Assistant in Medicine (Neurology), 1925–26; Neurologisches Institut, Psychiatrische Klinik, Allegemeine Poliklinik, Vienna, 1926–27. At Stanford since 1925.

†Schultz, Edwin William (123) 743 Cooksey Lane (PA 6626)
Professor of Bacteriology and Experimental Pathology

B.S., Winona College, 1913; A.B., Michigan, 1914; M.D., Johns Hopkins, 1917. Special Student in Protozoölogy, School of Hygiene and Public Health, Johns Hopkins University, 1919; Fellow in Pathology, Mayo Foundation, Spring and Summer Quarters, 1921–22; Field Director, International Health Board, 1917; First Lieu-

tenant and Captain, M.C., U.S.A., Deputy Commissioner (Major, U.S.A.), American Red Cross, 1917–19; Chief of Laboratory, 33d Division, U.S. Army; Pathologist, Base Hospital No. 42, A.E.F., 1917–18; Chief of Laboratory, A.R.C. Military Hospital No. 9, A.E.F.; Bacteriologist, A.R.C. Commission to Germany; Chief of Bureau of Medical Research, A.R.C. Commission to Poland, 1918–19; John Simon Guggenheim Memorial Fellow in Bacteriology for research abroad, 1925–26. At Stanford since 1920.

†Schwartz, William Leonard (123) 667 Salvatierra-*572* (PA 8036)
Associate Professor of Romanic Languages

A.B., Ohio Wesleyan, 1910; A.M., Stanford, 1920, Ph.D., 1926. Professor of English, Kagoshima Seventh Government College, Japan, 1910–14, Nagasaki Imperial College of Commerce, 1914–19; Professor of French, College of the Pacific, 1919–20; Student, University of Paris, 1921; Lecturer in French, University of Southern California, Summer Session, 1927; Certificat d'études pratiques de prononciation française, University of Paris, 1929. At Stanford since 1920.

Scofield, Bonita Miles (Mrs.) (12) 2310 Waverley, P-p (PA 4721)
Cataloguer, Library

A.B., Nevada, 1924. At Stanford since 1925.

Scott, Charles Craven (123) 13 Stanford Union-*2014* (PA 3121)
Instructor in History

A.B., Stanford, 1927, A.M., 1929. Assistant in Instruction, Economics, Stanford, 1929–30. At Stanford since 1929.

†Sears, Jesse Brundage (234) 1120 Parkinson, P-*1179* (PA 8556)
Professor of Education

A.B., Stanford, 1909; Ph.D., Teachers College, Columbia, 1920. Student, University of Chicago, Summer Quarter, 1910; Research Scholar, Teachers College, Columbia University, 1910–11; Instructor in Education, University of Wisconsin, 1909–10; Assistant in Educational Sociology, Teachers College, Columbia University, Summer Session, 1911; Acting Associate Professor of Education, University of Minnesota, 1920–21; Director, Survey of University of Minnesota, Autumn Quarter, 1921–22; Visiting Professor, University of Pennsylvania, Summer Session, 1927. At Stanford since 1911.

Sears, Louis Martin (3) 5 Stanford Union* (PA 3121)
Acting Professor of History

A.B., Chicago, 1905, A.M., 1909, Ph.D., 1922. High School and Normal School work (chiefly in Chicago), 1905–20; Assistant Professor, Associate Professor, and Professor of History, Purdue University, since 1920; Duke University, 1927–28; Summer Sessions, Duke University, 1926, 1927, University of Nebraska, 1927, 1928, University of Missouri, 1930.

Seem, Ralph Berger (123) 1450 Greenwich, SF-sf (Graystone 8125)
Professor of Hospital Administration, and Physician-Superintendent of Stanford University Hospitals

Ph.B., Lafayette College, 1902; M.D., Johns Hopkins, 1906. Medical Superintendent, James Walker Memorial Hospital, Wilmington (N.C.), 1908–12; Assistant Superintendent, Johns Hopkins Hospital, 1912–20, Acting Superintendent, 1917–19; Director, Albert Merritt Billings Hospital, University of Chicago, 1920–29; Medical Superintendent, Peking Union Medical College Hospital, 1921–23. At Stanford since 1929.

†Seitz, Roland P. (123) 21 Frederick, SF-sf (Underhill 8338)
Assistant Clinical Professor of Pediatrics

A.B., Stanford, 1919, M.D., 1923. Senior Interne, Pediatrics, Lane Hospital, 1923–24. At Stanford since 1924.

Sellards, John Armstrong (234) 344 Serra-*111* (PA 5246)
Dean of Summer Quarter

A.B., Illinois, 1912; A.M., Stanford, 1916. At Stanford, 1916–17, 1919–20, 1922–23, and since 1924.

†Sewall, Edward Cecil (123) 430 El Escarpado (PA 3925)
Clinical Professor of Surgery (Otology, Rhinology, Laryngology)

A.B., Stanford, 1898; M.D., Cooper Medical College, 1902. Assistant and Instructor in Ophthalmology, Cooper Medical College, 1901–7, Assistant Professor, 1907–9; Student in Freiburg, 1909–10; Associate Professor of Diseases of Eye, Ear, Nose, and Throat, Cooper Medical College, 1910–12. At Stanford since 1912.

†Seward, Samuel Swayze, Jr. (123) 262 Kingsley, P-p (PA 5440)
Professor of English

A.B., Columbia, 1896, A.M., 1897. Scholar in Literature, Columbia University, 1896–97, Assistant in Literature, 1897–99; Student, Oxford University, 1899–1900; Acting Professor of English, University of Nevada, 1907; Assistant Professor of English, University of California, Summer Session, 1907, University of Oregon, Summer Session, 1908. At Stanford since 1900.

†Shafer, George Daniel (123) 321 Melville, P-p (PA 3964)
Associate Professor of Physiology

A.B., Indiana, 1900; A.M., Stanford, 1906; Ph.D., Cornell, 1908. Fellow in Entomology and Invertebrate Zoölogy, Cornell University, 1906–8; Research Assistant, Experiment Station, Michigan Agricultural College, 1908–14, Associate, 1914–17. At Stanford since 1918.

†Shedd, Solon (123) 663 San Juan-*1888* (PA 5972)
Curator, Branner Geological Library

B.S., Monmouth, 1889; A.B., Stanford, 1896, A.M., 1907, Ph.D., 1910. Instructor in Natural Sciences, State Normal School, Monmouth (Ore.), 1889–94; Assistant Professor of Geology, State College of Washington, 1896–1901, Professor, 1901–25; Geologist, Washington State Geological Survey, 1901–3, Assistant State Geologist, 1909–11, State Geologist, 1921–25; Acting Associate Professor of Geology, Stanford, Summer and Autumn Quarters, 1921, Acting Professor of Geology, Summer Quarter, 1922. At Stanford, 1921, 1922, and since 1925.

†Sheldon, Henry Davidson (4) Kingscote-*1200* (PA 21894)
Acting Professor of Education

A.B., Stanford, 1896, A.M., 1897; Ph.D., Clark University, 1900. Assistant Professor, University of Oregon, 1900–1905, Professor, 1905–11; Professor, History of Education, University of Pittsburgh, 1911–14; Student, University of Leipzig, 1911; Dean, School of Education, University of Oregon, since 1914, Chairman, Administrative Committee of University, 1924–26.

†Shepard, Charles Edward (1234) 2370 South Court, P* (PA 5301)
Associate Professor of Hygiene and Physical Education, and Director of Men Students' Health Service

B.S., Minnesota, 1920, A.M., 1922, M.B., 1923, M.D., 1924. Mayo Teaching Fellow in Physiology, Minnesota, 1920–22; Research Fellow, Marine Biological Station, Woods Hole (Mass.), 1921; Instructor in Physiology, Minnesota, 1922–23; Resident Physician, Philadelphia General Hospital, 1924–25; Lecturer on Preventive Medicine and Public Health, Western Union College, 1925–28; Associate Physician, Cragmor Sanatorium, 1929–30. At Stanford since 1930.

†Shepard, Orson Cutler (123) 626 Middlefield, P* (PA 22219)
Instructor in Mining and Metallurgy

A.B., Stanford, 1925, Engineer, 1928. Research Engineer, Anaconda Copper Mining Co. (Montana), 1925–26; Metallurgist, San Luis Mining Co. (Mexico), 1926–27. At Stanford since 1928.

†Shepard, William Peacey (123) 1019 Waverley, P-p (PA 7497)
Lecturer on Industrial Hygiene

B.S., Minnesota, 1919, M.B., 1920, M.D., 1921, A.M., 1922. Special Agent, Minnesota State Board of Health, 1916, 1919; Instructor in Clinical Microscopy, Minnesota, 1920; Adjutant, Base Hospital No. 26, A.E.F., 1917–19; Instructor in Public Health and Preventive Medicine, and Assistant Director, Students' Health Service, Minnesota, 1920–23; Special Lecturer in Hygiene, Western Union College (Iowa),

1923–24; Medical Director, Berkeley Health Center, 1924–26; Health Officer, Berkeley, 1924–26; Director, Health and Development, Berkeley Public Schools, 1924–26; Chairman, Health Council, San Francisco Community Chest, 1927–30; Assistant Secretary and Welfare Director, Pacific Coast Head Office, Metropolitan Life Insurance Co., San Francisco.

†Shepardson, Dwight Emerson (123) 80 Yerba Buena, SF-sf
Clinical Instructor in Medicine [(Montrose 8672)

A.B., Stanford, 1917, M.D., 1921. Resident in Medicine, Lane Hospital, 1922–23. At Stanford since 1922.

†Sherman, Julius (123) 75 Sea Cliff, SF-sf (Evergreen 3232)
Clinical Instructor in Medicine

M.D., California, 1916. Interne, Mount Zion Hospital, 1916–17; Assistant in Medicine, University of California Medical School, 1917–21. At Stanford since 1925.

†Shero, Lucius Rogers (4) 528 Alvarado* (PA 5986)
Acting Professor of Classical Literature

A.B., Haverford, 1911; B.A., Oxford, 1917; A.M., Wisconsin, 1912, Ph.D., 1920. University Fellow in Latin, Wisconsin, 1912–13, University Fellow in Greek, 1913–14; Associate Professor of Latin, Macalester College, 1917–18, Professor, 1918–20; Hoffman Professor of Greek, St. Stephen's College, 1920–28; Professor of Greek, Swarthmore College, since 1928.

Shue, Violet L. (Mrs.) (1234) 1027 Santa Cruz, MP-*2273* (PA 21069)
Assistant Reference Librarian

A.B., South Dakota, 1921. At Stanford, 1922–24, and since 1927.

†Skogsberg, Tage (1234) Casanova and Thirteenth, Carmel*
Associate Professor of Marine Biology and Oceanography
(Hopkins Marine Station)

A.M., Upsala, 1912, Ph.D., 1920. Curator, Zoölogical Institution, Upsala, 1917–20; Upsala University Scholar, Musée Oceanographique of Monaco, 1915; Hopkins Marine Station, 1921; Scientific Assistant, California Fish and Game Commission, 1922; Research Assistant, University of California, 1923–25, Associate in Zoölogy, Second Semester, 1925–26. At Stanford, Summer Quarter, 1925, and since 1926.

†Sloan, William Henry (123) Manuella, Alta Mesa* (PA 29192)
Associate Professor of Chemistry

A.B., Stanford, 1903, A.M., 1904. Student, University of Leipzig, 1904–5; Assistant Chemist, San Francisco Board of Health, 1905–6. At Stanford, 1903–4, and since 1906.

†Slonaker, James Rollin (123) 334 Kingsley, P* (PA 7223)
Professor of Physiology

B.S., Wisconsin, 1893; Ph.D., Clark, 1896. Fellow in Biology, Clark University, 1893–96; with United States Fish Commission, Woods Hole (Mass.), Summer, 1895; Instructor in Zoölogy, Indiana University, 1896–99, Biological Station, 1896–1900, Assistant Professor of Zoölogy, 1899–1901; Research Assistant in Neurology, University of Chicago, 1901–2, Associate in Neurology, 1902–3. At Stanford since 1903.

Smith, Ann Avery (4) 637 Alvarado* (PA 3347)
Acting Instructor in Physical Education

B.S., Wisconsin, 1925. Allerup Gymnastic College, Denmark, Summer, 1927; Instructor in Physical Education and Director of Swimming, Ohio University, 1925–27, Assistant Professor of Physical Education, 1927–28; Instructor in Physical Education and Director of Swimming, University of Illinois, since 1928.

†Smith, Edward Anderson (123) 216 Myrtle, Burlingame-*2132* (B 7109)
Instructor in Physical Education and Hygiene

A.B., Stanford, 1928. At Stanford since 1928.

†Smith, Everett Wallace (134) 556 Alvarado-*678* (PA 4426)
Professor of Journalism, and Director of Publicity

A.B., Stanford, 1899. At Stanford since 1910.

†Smith, Gilbert Morgan (234) 1808 Waverley, P* (PA 4846)
Professor of Botany

A.B., Beloit, 1907; Ph.D., Wisconsin, 1913; D.Sc., Beloit, 1927. Assistant in Botany, Wisconsin, 1909–10; Instructor in Botany, Pomona, 1910–11; Assistant in Botany, Wisconsin, 1911–12, Instructor, 1912–17, Assistant Professor, 1917–19, Associate Professor, 1919–25; Acting Associate Professor, Stanford, Autumn Quarter, 1923–24. At Stanford, 1923, and since 1925.

†Smith, Herbert Gordon (123) 148 Locust, SF-sf (Walnut 1429)
Clinical Instructor in Surgery (Ophthalmology)

M.D.C.M., McGill University, 1923. Montreal General Hospital, 1923–24; St. Luke's Hospital, New York City, 1925–26; Assistant Visiting Ophthalmologist, San Francisco Hospital; Visiting Ophthalmologist, Laguna Honda Home. At Stanford since 1930.

[†Smith, Stanley Astredo 2 Finger, Redwood City-rc (Redwood 285W)
Professor of Romanic Languages]

A.B., Stanford, 1903, A.M., 1905. Assistant in Romanic Languages, Stanford University, 1903–4, Instructor, 1904–7; Student, Universities of Paris and Madrid, 1906–7; Instructor in French and Italian, University of Washington, 1907–11; Student, Harvard University, 1911–13, Instructor in Romance Languages, 1912–13; Professor of Romance Languages, Reed College, 1913–14; Acting Assistant Professor of French, University of Washington, Summer, 1920, University of California, Summer, 1922; Lecturer in Italian, University of California, 1927–28. At Stanford, 1903–7, and since 1914.

Smith, Ward Conwell (4) Stanford Geological Survey, Santa Paula-sp
Acting Instructor in Geology

A.B., Stanford, 1931.

Snedden, Loring Bertram (4) Stanford Geological Survey
Acting Instructor in Geology Santa Paula-sp

A.B., Stanford, 1930, A.M., 1931.

Snell, Elizabeth Burritt (Mrs.) (12) 1333 Tasso, P* (PA 6896)
Appointment Secretary

A.B., Stanford, 1908. At Stanford 1916–31.

§Snodgrass, Katharine
Research Associate, Food Research Institute

A.B., Bryn Mawr, 1915; A.M., Columbia University, 1918. Research Assistant, War Industries Board, 1918–19, Federal Reserve Board, 1919–22; Associate Editor, *New York Journal of Commerce,* 1923. At Stanford 1924–30.

†Snyder, John Otterbein (123) 542 Alvarado (PA 7037)
Professor of Zoölogy

A.B., Stanford, 1897, A.M., 1899. Assistant, U.S. Fish Commission, 1897, 1899, 1904, 1915, 1916; Naturalist on U.S.S. "Albatross" engaged in deep sea investigations, 1902, 1906; Expert Ichthyologist, U.S. National Museum, 1914; Fisheries Expert, Fish and Game Commission of California, since 1919; Director, U.S. Fisheries Marine Laboratory, Woods Hole (Mass.), 1926. At Stanford since 1897.

Spalding, Alfred Baker (1234) 2651 Green, SF-sf (Fillmore 0826)
Professor of Obstetrics and Gynecology

A.B., Stanford, 1896; M.D., Columbia, 1900. House Surgeon, General Memorial Hospital, New York, 1900–1901; Assistant Resident Physician, Sloane Maternity Hospital, New York, 1901–2; Instructor in Obstetrics, University of California, 1902–5, Assistant Professor, 1905–9, Professor, 1909–12. At Stanford since 1912.

§ Deceased, September 25, 1930.

†Spencer, Peter Lincoln (4) 1648 California, P-*1464*
Acting Associate Professor of Education

B.S., Oregon, 1922, A.M., 1924; Ph.D., Stanford, 1929. Instructor, University High School, University of Oregon, 1919–22; Instructor in Education, University of Oregon, 1923–25; Head of Education Department, Oregon Normal School, 1926–27; Extension Instructor, University of California, 1928; Specialist on Elementary Education, Bureau of Education, Philippine Islands, since 1929.

Spenner, Irene (Mrs.) (1234) 759 Webster, P-*2573* (PA 5949)
Executive Assistant, Appointment Service

A.B., Indiana University, 1923. At Stanford since 1925.

†Sprague, Charles Myron (123) 512 Governor's Ave. (PA 7647)
Associate Director of Physical Education and Hygiene

A.B., Bowdoin College, 1920. Ensign, U.S. Navy, April 1917–August 1919; Director of Physical Education, Ellensburg (Wash.) High School, 1922–24; University of Illinois Coaching School, Summer, 1924. At Stanford since 1924.

Springer, John Young (123) 325 Everett, P-p (PA 7495)
Instructor in Economics

A.B., Stanford, 1927, M.B.A., 1929. Teaching Assistant in Economics, Stanford, 1927–29; Research Assistant, National Investors Corporation, New York City, 1929–30. At Stanford since 1930.

†Sprout, Harold Hance (123) 275 Fernando, P-*3004* (PA 6002)
Acting Assistant Professor of Political Science

A.B., Oberlin, 1924, A.M., 1924; Ph.D., Wisconsin, 1929. Student, University of Wisconsin Law School, 1924–25, Western Reserve University Law School, 1925–26; Assistant in Political Science, University of Wisconsin, 1924–25, 1927–29; Acting Assistant Professor of Government, Miami University (Ohio), 1926–27; Carnegie Fellow in International Law, 1928–29.

†Stadtherr, Edward F. (123) 3825 Scott, SF-sf (Walnut 4488)
Clinical Instructor in Medicine (Neuropsychiatry)

M.D., St. Louis University, 1913. Assistant Surgeon, U.S.N., 1917–20, Past Assistant Surgeon, 1920–21; Franklin Hospital, 1926–27; Southern Pacific Hospital, since 1928; Laguna Honda Home, since 1928. At Stanford since 1921.

Starks, Chloe Lesley (Mrs.) (123) 1115 Ramona, P-p (PA 21276)
Associate Professor of Education (Graphic Art)

At Stanford since 1899.

†Starks, Edwin Chapin (123) 1115 Ramona, P-p (PA 21276)
Associate Professor of Zoölogy

Assistant in United States Bureau of Biological Survey, 1897–99; Curator of the Museum and Assistant Professor of Zoölogy, University of Washington, 1899–1900; Investigator, Naples Zoölogical Station, 1907, 1914. At Stanford since 1900.

Stauf, Ida (123) 683 Salvatierra (PA 3750)
Instructor in Romanic Languages

A.B., Stanford, 1910, A.M., 1912; Docteur de l'Université de Paris, 1927. Private Instructor in French, Italian, and German, Palo Alto, 1910–18; Assistant in Instruction, Romanic Languages, Stanford, 1918–22, 1923–25; Student, University of Paris, 1922–23; Research Student, University of Paris, 1925–27. At Stanford, 1918–22, 1923–25, and since 1928.

†Stebbins, Horatio Ward (123) 491 Santa Rita, P-p (PA 7513)
Associate Professor of Mechanical Engineering

A.B., California, 1899; B.S., Massachusetts Institute of Technology, 1902. Assistant to Engineer of Tests, Southern Pacific Company, 1902–5; Engineer and Estimator, San Francisco Bridge Company, 1905–13. At Stanford since 1914.

STEELE, HELEN WINTER (MRS.) (1234) 202 Funston, SF-sf (Bayview 3285)
Secretary to Dean, School of Medicine

At Stanford since 1929.

STEINMETZ, RUTH LOLITA (1234) 1021 Ramona, P* (PA 5838)
Cataloguer, Library

A.B., Stanford, 1922. Student, School of Librarianship, University of California, 1922–23. At Stanford since 1923.

†STEPHENSON, HENRY AUGUSTUS (1234) 2677 Larkin, SF-sf
Associate Clinical Professor of Obstetrics and Gynecology [(Graystone 5788)

A.B., Randolph-Macon College, 1906; M.D., Johns Hopkins Medical School, 1910. Assistant Resident Obstetrician, Johns Hopkins Hospital, 1911–12, Resident Obstetrician, 1912–14; Assistant in Obstetrics, Johns Hopkins Medical School, 1911–12, Instructor, 1912–14; First Lieutenant, M.R.C., U.S.A., April 1918 to January 1919. At Stanford since 1914.

STEVENS, JULIA R. (1234) 926 Cowper, P-*2696* (PA 8295)
Secretary, Mechanical Engineering

At Stanford since 1925.

†STEVENS, WILLIAM EMERSON (4) 1007 Gough, SF-sf (Ordway 9765)
Associate Clinical Professor of Obstetrics and Gynecology (Urology)

M.D., California, 1899. Chief of Genito-Urinary Clinic, San Francisco Polyclinic, 1912–18, Chief of Genito-Urinary Department since 1918, Chief of Gynecological Urology Department, since 1916; Visiting Urologist, San Francisco Hospital, since 1916; Consulting Genito-Urinary Surgeon, Bethlehem Shipbuilding Corporation, Ltd., Hospital, since 1918; Urological Study in Paris, Vienna, and London, 1924. At Stanford since 1919.

STILLMAN, MINNA (1234) 520 Alvarado (PA 4528)
Document Librarian

A.B., Stanford, 1903. At Stanford since 1912.

STILLSON, GRACE ELIZABETH (1234) 332 Homer, P-Box 432, p (PA 7016)
Cataloguer, Library

A.B., Stanford, 1915. At Stanford since 1917.

†STOCKTON, ANDREW BENTON (123) 3144 Washington, SF-sf
Instructor in Therapeutics [(Fillmore 2579)

A.B., Stanford, 1923, M.D., 1928. Assistant in Instruction, Pharmacology, Stanford, 1926–28; Assistant Resident, Medicine, Lane Hospital, 1928–29. At Stanford since 1926.

†STODDARD, KENNETH BERKELEY (123) 315 Stanford Union* (PA 3121)
Instructor in Physics

A.B., University of California at Los Angeles, 1928; A.M., Stanford, 1930. Assistant in Physics, Stanford, 1928–30. At Stanford since 1928.

†STONE, CALVIN PERRY (1234) 656 Channing, P-*828* (PA 4396)
Professor of Psychology

A.B., Indiana, 1915, A.M., 1916; Ph.D., Minnesota, 1921. Teaching Fellow in Education, University of Minnesota, 1916; Director of Psychological Research, Indiana State Reformatory, 1916–17; Psychological Examiner, U.S. Army, 1917–19; Teaching Fellow in Psychology, University of Minnesota, 1919–21; Instructor in Neural and Histological Anatomy, University of Minnesota, 1921–22; Research at Institute for Juvenile Research, Chicago, 1928–29. At Stanford since 1922.

STONE, ELSIE BAILEY (MRS.) (1234) 840 Bryant, P-p
Custodian, Charlotte Ashley Felton Memorial Library

B.S., Simmons College Library School, 1916. Assistant Librarian, Huntington Park Union High School, 1924–25; Librarian, Lincoln Junior High School, Santa Monica, 1925; Librarian, Thomas A. Edison Junior High School, Los Angeles, 1926–27. At Stanford since 1929.

†Storey, Thomas Andrew (1234) 739 Santa Ynez-*3006* (PA 6246)
Professor of Hygiene and Physical Education, Medical Adviser of Men, Director of Encina Gymnasium, and General Director of School of Hygiene and Physical Education (Men)

A.B., Stanford, 1896, A.M., 1900, Ph.D., 1902; M.D., Harvard, 1905. Diploma Interne, Long Island Hospital, Boston, 1905; Resident Physician, Boston Children's Hospital, 1906; Assistant, Instructor, and Assistant Professor of Hygiene, Stanford, 1896–1906; Associate Professor and Professor of Hygiene, and Director of the Department of Hygiene, College of the City of New York, 1906–26. At Stanford, 1896–1906, and since 1926.

Stover, Harry Frederick (124) Kingscote-*1166*
Instructor in English (Public Speaking), and Technical Director of Dramatics

B.S., Gettysburg College, 1927. Graduate Student, Yale, 1927–29; Instructor in Stage and Costume Design, Middlebury College, Summer Sessions, 1928, 1929. At Stanford since 1929.

†Strong, Edward Kellogg, Jr. (123) 672 Mirada (PA 4229)
Professor of Psychology and of Applied Psychology (Graduate School of Business)

B.S., California, 1906, M.S., 1909; Ph.D., Columbia, 1911. Assistant, Barnard College, 1909–10; Fellow in Psychology, Columbia University, 1910–11; Research Fellow in Advertising for Ad Men's League, New York City, 1911–12; Research Fellow in Advertising for Association of National Advertisers, 1912–15; Lecturer, Extension Department, Columbia University, 1911–14, 1919; Professor of Psychology and Psychology of Education, George Peabody College for Teachers, 1914–17; Lieutenant Colonel, General Staff, and Member Committee on Classification of Personnel in Army, 1917–19; Professor and Head of Department of Vocational Education, Carnegie Institute of Technology, 1919–21, Head of Bureau of Educational Research, 1921–23; Professor, Carnegie School of Life Insurance Salesmanship, 1919–23. At Stanford since 1923.

Strothmann, Friedrich Wilhelm (123) 637 Alvarado* (PA 3347)
Instructor in German

Ph.D., University of Köln (Germany), 1929. Assistant, Deutsches Seminar, University of Köln, 1928–30. At Stanford since 1930.

†Stuart, Graham Henry (234) 548 Gerona-*3004* (PA 8289)
Professor of Political Science

A.B., Western Reserve, 1908; A.M., Wisconsin, 1918, Ph.D., 1919. Student, Alliance Française, 1910, Sorbonne, 1911, École Libre des Sciences Politiques, 1913–14; Assistant in Political Science, University of Wisconsin, 1917, Assistant Professor, 1921–23; Research Associate, Carnegie Institution (stationed at Lima, Peru), 1924; Acting Associate Professor, University of Chicago, Summer Quarter, 1926; Acting Professor, University of Washington, Summer and Autumn Quarters, 1927; Visiting Carnegie Professor of International Relations at Universities of Montpellier, Toulouse, and Poitiers, 1929; Acting Professor, University of Hawaii, Summer and Autumn Quarters, 1930. At Stanford since 1923.

†Stuart, Henry Waldgrave (123) 654 Cabrillo-*1063* (PA 4770)
Professor of Philosophy

Ph.B., California, 1893; Ph.D., Chicago, 1900. Teacher, Hollister High School, 1893–94; Fellow in Political Economy, University of Chicago, 1894–96; Instructor (pro tem.) in Economics and Psychology, Washington University, St. Louis, 1896–97; Teacher, Central School, Oakland, 1897–98; Principal, Woodland High School, 1898–99; Fellow in Philosophy, University of Chicago, 1899–1900; Instructor in Economics and History, Ripon College, 1900–1901; Instructor in Philosophy, State University of Iowa, 1901–4; Acting Professor of Philosophy, Lake Forest College, 1904–5, Assistant Professor, 1905–7; Professor of Philosophy, University of Chicago, Summer Quarters, 1907, 1909, 1912, 1916, 1920, University of Washington, Summer Quarter, 1928. At Stanford since 1907.

Sutherland, John Gordon (123) 11 Stanford Union-*723* (PA 3121)
Acting Instructor in Civil Engineering

B.A.Sc., University of Toronto, 1930.

SUTLIFF, HELEN BINNINGER (1234) 565 Salvatierra-*927* (PA 4819)
Chief Cataloguer, Library

A.B., Kansas, 1890. Head Cataloguer, University of Kansas Library, 1891–1904; Cataloguer in Columbia University Library, Summer, 1901; Assistant in charge, University of California Summer School in Library Methods, and Instructor in Classification and Cataloguing, Summer, 1913. At Stanford since 1904.

†SWAIN, ROBERT ECKLES (1234) 634 Mirada* (PA 7918)
Acting President, and Professor of Chemistry

A.B., Stanford, 1899; M.S., Yale, 1901, Ph.D., 1904; LL.D., College of the Pacific, 1929. Student, Universities of Strasbourg and Heidelberg, 1901–2, Yale University, 1909–10; Lecturer and Medalist, Charles Frederick Chandler Foundation, Columbia University, 1924. At Stanford since 1898.

SWEET, MARY C. (1234) 921 Scott, P-p (PA 5957)
Assistant Registrar

A.B., Vassar, 1906; B.S., Simmons, 1909. At Stanford since 1923.

†SWETT, WILBER FRANK (1234) 2944 Divisadero, SF-sf (Walnut 4737)
Assistant Clinical Professor of Surgery (Ophthalmology)

A.B., Stanford, 1917, M.D., 1922. Lieutenant, Field Artillery, A.E.F., 1917–19; House Officer, Stanford Hospital, 1923, Resident (Ophthalmology), 1924; Postgraduate, Vienna, 1925, Oxford, 1926; Diplomate, National Board of Ophthalmic Examiners, 1926; Visiting Ophthalmologist, Mary's Help Hospital, San Francisco, Southern Pacific Hospital, San Francisco. At Stanford since 1923.

†TAINTER, MAURICE LANE (4) 2299 Sacramento, SF-sf (Fillmore 5649)
Associate Professor of Pharmacology

A.B., Stanford, 1921, A.M., 1924, M.D., 1925. Fellow of the National Research Council, Johns Hopkins, 1926–27; Pharmacologic Institute Pharmaceutical Society of Great Britain, London, 1930. At Stanford since 1924.

TANNER, HILDA V. (MRS.) (1234) 1111 High, P* (PA 7214)
Secretary to Dean, School of Engineering

At Stanford since 1920.

TAYLOR, ALONZO ENGLEBERT (1234) 344 Serra-*3031* (PA 7634)
Director and Executive Secretary, Food Research Institute

M.D., Pennsylvania, 1904; LL.D., Wisconsin, 1920. Student, University of Berlin, 1890–91, 1899–1900; Instructor, University of Pennsylvania, 1897–99; Professor of Pathology, University of California, 1900–1910; Professor of Pathological Chemistry, University of Pennsylvania, 1910–21. At Stanford since 1921.

[†TAYLOR, CHARLES VINCENT 562 Gerona (PA 3333)
Professor of Biology]

A.B., Mt. Morris College, 1911; A.M., University of California, 1915, Ph.D., 1917. Instructor in Zoölogy, University of California, 1917–18; Johnston Scholar, Johns Hopkins University, 1918–20; Assistant Professor of Zoölogy, University of California, 1920–23; Acting Assistant Professor of Zoölogy, Hopkins Marine Station, Stanford University, Summer, 1922 and 1923; Assistant Professor of Zoölogy (on exchange), University of Michigan, 1924; Research Associate, Tortugas Marine Station of the Carnegie Institution, Summers, 1924, 1926. At Stanford since 1925.

TAYLOR, ELIZABETH BRAND (MRS.) (1234) 635 Salvatierra-*524* (PA 7888)
Secretary to Dr. Taylor, Food Research Institute

At Stanford since 1920.

†TAYLOR, HOWARD STORY (123) 1211 College, P-*1485* (PA 3860)
Instructor in Mining Engineering

B.S., Michigan, 1928. Chemist, 1917; Metallurgist, Central Steel Company, 1919–20; Chief Metallurgist, Holt Manufacturing Company, 1922–24; Metallurgist and Chief Chemist, Caterpillar Tractor Company, 1924–26; Consulting Metallurgist, San Francisco, 1927; Assistant in Mechanical Engineering, Stanford, 1928. At Stanford since 1928.

†Taylor, Pleasant A. (123) 2009 Lyon, SF-sf (Fillmore 3925)
Clinical Instructor in Medicine

B.S., University of Oklahoma, 1912; M.D., Tulane University, 1916. Laboratory Assistant in Physiology, University of Oklahoma, 1911–12; Instructor in Anatomy, Tulane University, 1912–16; U.S. Army, 1917–19; American Red Cross, 1919–20. At Stanford since 1926.

†Templeton, Robert Lyman (123) 666 Lasuen (PA 5968)
Director of Track and Field

A.B., Stanford, 1921. At Stanford since 1921.

†Templin, Ernest Hall (1234) 231 Nevada, P-*2471* (PA 22507)
Acting Assistant Professor of Spanish

A.B., Stanford, 1920, A.M., 1921, Ph.D., 1926. Teacher of French, Spanish, and Latin, Burley (Idaho) High School, 1921–22; Assistant in French and Spanish, University of Illinois, 1922–23; Student, University of Madrid, 1923–24; Assistant in Spanish, Stanford, 1924–25, Instructor, 1925–26; Instructor in Spanish, University of California at Los Angeles, 1926–28, Assistant Professor, 1928–30.

†Terman, Frederick Emmons (123) 659 Salvatierra (PA 7670)
Associate Professor of Electrical Engineering

A.B., Stanford, 1920, Engineer, 1922; Sc.D., Massachusetts Institute of Technology, 1924. At Stanford since 1925.

†Terman, Lewis Madison (234) 761 Dolores* (PA 6328)
Professor of Psychology

A.B., Indiana, 1902, A.M., 1903; Ph.D., Clark University, 1905; LL.D., Indiana, 1929. Fellow in Psychology and Education, Clark University, 1903–5; Principal of High School, San Bernardino, 1905–6; Head of Department of Child Study and Pedagogy, Los Angeles State Normal School, 1906–10; Lecturer in Education, Indiana University, Summer Session, 1909, University of Washington, Summer Session, 1912, New York University, Summer Session, 1916, Columbia University, Summer Session, 1917; Major, Division of Psychology, Surgeon General's Office, Washington (D.C.), 1918. At Stanford since 1910.

†Thomas, Earl Charles (123) 211 Middlefield, P* (PA 6929)
Associate Professor of Civil Engineering

A.B., Stanford, 1914. Instructor in Railroad Engineering, A.E.F. University, Beaune, France, 1919. At Stanford since 1920.

†Thompson, Walter (12) 121 Castilleja, P-*3004* (PA 5990)
Associate Professor of Political Science

A.B., McPherson College, 1912; A.M., University of Kansas, 1913; Ph.D., University of Wisconsin, 1921. Fellow in Sociology, University of Kansas, 1912–13; Scholar in Political Science, University of Wisconsin, 1915–16; Instructor in Political Science and Economics, Hibbing Junior College, 1916–17, 1919–20; Graduate Student, University of Chicago, 1917, Sorbonne, 1919; Assistant in Political Science, University of Wisconsin, 1920–21, Instructor, 1921–23; Assistant Superintendent of Schools, Hibbing (Minn.), 1923–25; Professor of Government, University of Oklahoma, 1925–28. At Stanford since 1928.

†Thornhill, Claude E. (123) 339 Manzanita, P-*3006* (PA 5884)
Associate Director, School of Hygiene and Physical Education

At Stanford since 1922.

†Tickell, Frederick George (123) 652 Forest, P-p (PA 6456)
Professor of Petroleum Engineering

B.S., California, 1912, E.M., 1927. Engineer at Dawson (Y.T.), for the Yukon Gold Co., 1912; Assistant in Mineralogy, University of California, 1913; Engineer and Geologist, Marin Municipal Water District, 1913; Engineer, Croesus Gold Mining and Milling Co., 1914–15; Geologist and Petroleum Engineer, Southern Pacific and Associated Oil Companies, 1916–21. At Stanford since 1921.

TIMS, LEILA BUDD (MRS.) (1234) 104 Walnut, SF* (Fillmore 2932)
Executive Assistant, Food Research Institute

At Stanford since 1928.

†TOLMAN, CYRUS FISHER (1234) 506 Mayfield-*830* (PA 7569)
Professor of Economic Geology

B.S., Chicago, 1896. Fellow in Geology, University of Chicago, 1897–98; Consulting Economic Geologist, since 1898; Professor of Geology, University of Arizona, 1905–6, Professor of Geology and Mining, 1906–12; Territorial Geologist of Arizona, 1910–12. At Stanford since 1912.

†TORRES-RIOSECO, ARTURO (4) 117 Ardmore, Berkeley-b (Ashberry 8968)
Acting Associate Professor of Spanish-American Literature

A.B., University of Chile, 1915; A.M., University of Minnesota, 1924. Adjunct Professor of Romance Languages, University of Texas, 1925–27, Associate Professor of Latin-American Literature, 1927–28; Associate Professor of Latin-American Literature, University of California, since 1928.

†TORREY, HARRY BEAL (123) 571 Hamilton, P-p (PA 3965)
Professor of Hygiene and Physical Education

B.S., California, 1895, M.S., 1898; Ph.D., Columbia, 1903; M.D., Cornell, 1927. Fellow in Zoölogy, Columbia, 1900–1901; Instructor, Assistant Professor, Associate Professor of Zoölogy, University of California, 1901–12; Temporary Assistant, Bureau of Fisheries (U.S.S. "Albatross"), 1906; Staff, San Diego Marine Biological Association, 1903–12; Professor of Biology, Reed College, 1912–20; Professor of Zoölogy, Professor of Experimental Biology, Chairman Department of Medicine, University of Oregon, 1920–25; Consultant, American Social Hygiene Association, 1926–28; Cornell University Medical College Clinic, 1927–28. At Stanford since 1928.

†TOWNE, EDWARD BANCROFT (123) 2629 Pierce, SF-sf (Fillmore 3270)
Associate Clinical Professor of Surgery

A.B., Harvard, 1906, M.D., 1913. Surgical House Officer, Peter Bent Brigham Hospital, Boston, 1913–14, Assistant Resident Surgeon, 1914–15; Honorary Medical Officer, Royal Army Medical Corps, France, 1915–16; Voluntary Assistant, Mayo Clinic, 1916–17; Assistant Resident Surgeon, Brigham Hospital, and Assistant in Surgery, Harvard Medical School, 1917; Medical Corps, U.S.A., A.E.F., 1917–19. At Stanford since 1919.

†TOWNLEY, SIDNEY DEAN (123) 661 Cabrillo* (PA 4218)
Professor of Astronomy and Geodesy

B.S., Wisconsin, 1890, M.S., 1892; D.Sc., Michigan, 1897. Fellow in Astronomy, University of Wisconsin, 1890–91, Assistant in Astronomy and Mathematics, 1891–92; Hearst Fellow in Astronomy, University of California (Lick Observatory), 1892–93; Instructor in Astronomy, University of Michigan, 1893–95, 1896–98; Student, Universities of Berlin and Munich, 1895–96; Instructor in Practical Astronomy, University of California, 1898–1903, Lecturer in Astronomy, 1904–7; Astronomer in charge of International Latitude Observatory, Ukiah, 1903–7; Visiting Lecturer in Astronomy, Harvard University, 1925–26. At Stanford since 1907.

TRACKSELL, RUTH (1234) 401 Lytton, P*
Executive Assistant, Appointment Service

A.B., Stanford, 1926. At Stanford since 1928.

†TREAT, PAYSON JACKSON (123) 750 Dolores-*97* (PA 5527)
Professor of History

A.B., Wesleyan, 1900; A.M., Columbia, 1903; Ph.D., Stanford, 1910; L.H.D., Wesleyan, 1931. Instructor in History, Barnard School, New York City, 1900–1903; Graduate Student, Stanford University, 1903–5; Research Student in Far East, 1906–7; Instructor in Government, Harvard University, 1908–9; Lecturer in Political Science, University of California, Second Semester, 1915–16; Shaw Lecturer, Johns Hopkins University, 1917; Visiting Professor, Columbia University, Spring Session, 1929, University of California, Summer Session, 1929. At Stanford since 1905.

†TROWBRIDGE, ALFRED LOCKWOOD (234) 559 Seale, P* (PA 22585)
Assistant Comptroller

A.B., Stanford, 1905. At Stanford since 1931.

TRUE, HELEN ELLA (1234) 332 Forest, P* (PA 21729)
Secretary to the President

A.B., Mt. Holyoke, 1905. At Stanford since 1914.

TUM SUDEN, LINDA (1234) 1900 Washington, SF-sf (Ordway 8370)
Cataloguer, Lane Medical Library

At Stanford since 1921.

TURRENTINE, LOWELL (1234) 770 Santa Ynez* (PA 4738)
Associate Professor of Law

A.B., Princeton, 1917; LL.B., Harvard, 1922, S.J.D., 1929. Practice of Law, 1922–28; Assistant to U.S. Special Counsel in Oil Lease Cases, 1924–25; Research Fellow (Law), Harvard, 1928–29. At Stanford since 1929.

†USPENSKY, JAMES VICTOR (123) 667 Melville, P-p (PA 3957)
Acting Professor of Mathematics

Graduate, University of St. Petersburg, 1906, Ph.D., 1910. Assistant Professor of Mathematics, St. Petersburg University for Women, 1911; Privat-docent, University of St. Petersburg, 1912–15, Professor, 1915–23; Member, Russian Academy of Sciences, since 1921; Visiting Professor of Mathematics, Carleton College, 1926–27; Professorial Lecturer, University of Minnesota, Summer Session, 1929.

†VAN PATTEN, NATHAN (1234) 579 Alvarado* (PA 3517)
Director of University Libraries

Fellow, Library Association (United Kingdom); Librarian, Wolcott Gibbs Library, College of the City of New York, 1917–20; Reference Librarian, Massachusetts Institute of Technology, 1920–21, Assistant Librarian, 1921–23; Chief Librarian, Queen's University, 1923–27; Lecturer, Library School, McGill University, 1927; Lecturer in Medical Bibliography, Medical School, University of California, since 1931. At Stanford since 1927.

†VAN RYSSELBERGHE, PIERRE JEAN (123) 431 Belvedere, SF*
Instructor in Chemistry [(Lockhaven 1812)

Engineer, Brussels, 1927; A.M., Stanford, 1928, Ph.D., 1929. Fellow of the Commission for Relief in Belgium, Stanford, 1927–29. At Stanford since 1929.

VAN ZANDT, ISABEL MANN (MRS.) (123) 2321 Sacramento, SF-sf
Acting Assistant Instructor in Practice of Nursing [(West 2836)

Graduate, Stanford School of Nursing, 1930.

†VERNADSKY, GEORGE (4) Cardinal Court, P-p (PA 3703)
Lecturer in History

Master of Russian History, Petrograd, 1917. Assistant Professor of Russian History, University of Petrograd, 1913–17; Professor of Russian History, University of Perm, 1917–18; Professor of Russian History, University of Crimea, 1918–20; Professor of the History of Russian Law, Russian Faculty of Law, Prague, 1922–27; Research Associate in History, Yale University, since 1927.

†VERNIER, CHESTER GARFIELD (123) 679 Mirada-*1425* (PA 7922)
Professor of Law

A.B., Butler College, 1903; J.D., Chicago, 1907. Graduate Scholar, University of Chicago, 1904–5; Instructor in Law, Indiana University, 1907–8; Professor of Law, University of Nebraska, 1908–10, Indiana University, 1909–11, University of Illinois, 1911–16; Lecturer in Law, University of Chicago, Summer Quarters, 1911, 1912, University of Michigan, Summer Session, 1914. At Stanford since 1916.

†VIOLETTE, HOMER NEWTON (123) 434 Kingsley, P* (PA 21304)
Assistant Professor of Anatomy

A.B., Louisiana State University, 1925. Assistant in Zoölogy, Yale, 1926–28. At Stanford since 1929.

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Secretary, Hygiene and Physical Education (Women), and Secretary to Medical Adviser of Women

A.B., California, 1918. At Stanford since 1928.

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Assistant Clinical Professor of Obstetrics and Gynecology

A.B., University of California, 1916; M.D., Stanford, 1920. Senior Interne, Obstetrics and Gynecology, Lane Hospital, 1920–21, Resident, 1921–22; Assistant Visiting Obstetrician and Gynecologist, San Francisco Hospital, since 1921. At Stanford since 1921.

†Walker, Edward Everett (12) 446 Hamilton, P* (PA 3480)
Instructor in Citizenship

B.S., Southwest Missouri Teachers College, 1920; A.M., Missouri State University, 1923. High School Teacher and Principal, Missouri and Kansas, 1918–22; Instructor in Sociology, Southwest Missouri Teachers College, 1923–27. At Stanford since 1930.

Walton, Albert (1234) 1344 Tasso, P-p
Acting Instructor in Psychology

M.E., Cornell, 1902; M.S., University of Washington, 1929.

†Warner, Glenn Scobey (123) 175 Madroño, P-p (PA 7837)
Director of Football

LL.B., Cornell University, 1894. At Stanford since 1922.

Washington, Lawrence (123) 702 Tennyson, P* (PA 21806)
Instructor in Mechanical Engineering

B.S., Massachusetts Institute of Technology, 1922; Engineer, Stanford, 1931. News Editor of *Power*, McGraw-Hill Publishing Co., 1922–23; Engineer with Griscom-Russell Co., New York, 1923–25; Engineer with Northern States Power Co., Minneapolis (Minn.), 1925–27; Instructor in Mechanical Engineering, University of Minnesota, 1927–28, Lehigh University, 1928–29. At Stanford since 1929.

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Instructor in Geology

B.S., University of Washington, 1926, M.S., 1927; Ph.D., Yale, 1930. Instructor in Geology, Yale, 1928–30. At Stanford since 1930.

Watson, Hilda Longyear (Mrs.) (1234) Los Altos-*1271*
Assistant Director (Encina Commons)

B.S., Cornell University, 1926. At Stanford, 1926–29, and since 1930.

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Acting Assistant Professor of Chemistry

A.B., Rice Institute, 1916; A.M., University of Colorado, 1923. Instructor in Chemistry, A.E.F. University (France), 1919; Associate Professor of Chemistry, Simmons University (Texas), 1920–22; Assistant in Chemistry, University of Colorado, 1922–23, Instructor, 1923–24; Professor of Chemistry, Simmons University, 1924–30; Teaching Fellow in Chemistry, Stanford, 1930–31.

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Associate Clinical Professor of Medicine (Dermatology)

B.S., Wake Forest, 1917; M.D., University of Louisville, 1919. Interne, Louisville City Hospital, 1919–20; Rudolph Virchow Krankenhaus, Hautklinik, Berlin, 1922; Assistant Visiting Dermatologist, San Francisco Hospital, 1924; Postgraduate study, University of Berlin, Hautklinik, 1925; Assistant, Dermatologische Klinik, University of Bonn, 1925–26; Clinique pour Dermatologie et Syphiligraphie, Hôpital St. Louis, Paris, 1926; University of Edinburgh Skin Clinic and the Royal College of Physicians, Department of Pathology, Edinburgh, 1926–27; Hautklinik, Allgemeines Krankenhaus, Vienna, 1927. At Stanford, 1923–25, and since 1927.

†Weber, Georges Minch (1234) 730 Santa Maria (PA 3903)
Research Associate, Food Research Institute

A.B., George Washington University, 1922; M.B.A., Harvard, 1926. Special Expert, U.S. Tariff Commission, 1919–22; Statistician, Institute of Economics, Washington (D.C.), 1922–24; Associate Professor, School of Business Administration, University of Texas, 1926–27; Professor, School of Business Administration, University of Oregon, 1927–28. At Stanford since 1928.

†Webster, David Locke (123) 576 Gerona* (PA 4629)
Professor of Physics

A.B., Harvard, 1910, Ph.D., 1913. Assistant in Mathematics, Harvard University, 1909–10, Instructor, 1910–14, Assistant in Physics, 1911–15, Instructor, 1915–17; Assistant Professor of Physics, University of Michigan, 1917; First Lieutenant, Science and Research Division, A.S.S.R.C., later B.A.P., 1917–18, Captain, 1918; Assistant Professor of Physics, Massachusetts Institute of Technology, 1919–20. At Stanford since 1920.

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Information Secretary, Registrar's Office

A.B., Stanford, 1925. At Stanford since 1925.

†Wells, James Bertrand (123) 846 Lytton, P-p (PA 6455)
Associate Professor of Civil Engineering

A.B., Stanford, 1911. Draftsman and Surveyor, Standard Oil Company, 1911–12, Engineer, 1912–17; U.S. Army, 1917–18; Structural Engineer, Standard Oil Company, 1918–21, in charge of Structural Designing, Engineering Department, 1921–28. At Stanford since 1928.

†Weymouth, Frank Walter (1) 517 Salvatierra-*96*
Associate Professor of Physiology

A.B., Stanford, 1909, A.M., 1911, Ph.D., 1923. Assistant in Physiology, Johns Hopkins University, 1912–13. At Stanford since 1910.

†Whitaker, Albert Conser (123) 544 Alvarado-*995* (PA 6573)
Professor of Economics

A.B., Stanford, 1899; Ph.D., Columbia, 1904. Fellow in Economics, Columbia University, 1900–1901; Student, University of Berlin, 1901; Lecturer in Economics and Social Science, Columbia University, 1906–7; Lecturer in Economics, University of California, Summer Sessions, 1906, 1911, 1924; Acting Professor of Economics, University of Chicago, second half of 1911–12, and 1912–13. At Stanford since 1902.

White, Edward Arthur (123) 1 Stanford Union-*2772* (PA 3121)
Instructor in History

A.B., Stanford, 1928, A.M., 1929. Royall Victor Fellow in History, Stanford, 1929–30. At Stanford since 1929.

Whittern, Jessie Dunten (Mrs.) (1234) 219 Hawthorne, P-p
Assistant Editor, University Press [(PA 21745)

Head Proofreader, University of Chicago Press, 1911–18, Assistant Editor, 1919–25. At Stanford since 1925.

†Whittier, Clarke Butler (123) Santa Cruz Ave., Menlo Heights-*890*
Professor of Law [(PA 5042)

A.B., Stanford, 1893; LL.B., Harvard, 1896. Attorney at Law, Los Angeles, 1895–96; Student, Stanford University, 1896–97, Instructor in Law, 1897–99, Assistant Professor, 1899–1900, Associate Professor, 1900–1902; Professor of Law, University of Chicago, 1902–14. At Stanford, 1897–1902, and since 1915.

Wickes, Florence (1234) 519 Webster, SF-sf (Underhill 6152)
Reference Librarian, Lane Medical Library

At Stanford since 1918.

Wickizer, Vernon Dale (1234) 686 Lasuen (PA 5967)
Instructor in Business Organization (Graduate School of Business), and Research Associate, Food Research Institute (Summer Quarter)

Graduate, U.S. Naval Academy, 1925; M.B.A., Stanford, 1929. Ensign, U.S. Navy, 1925–27; Research Staff, Federal Reserve Bank of San Francisco, 1929. At Stanford since 1929.

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Assistant Professor of Botany, and Associate Curator, Dudley Herbarium

A.B., Occidental, 1922; A.M., Stanford, 1925, Ph.D., 1930. Instructor in Botany, Occidental, 1925–27, Assistant Professor of Botany, 1927–March 1929; University Fellow in Botany, Stanford, 1927–29. At Stanford since 1929.

†Wight, William Franklin (123) Matadero, P-Box 775, p (PA 5053)
Lecturer in Botany

B.S., Michigan State College, 1894; A.B., Stanford, 1899, A.M., 1900. Assistant in Botany, Stanford, 1899–1900; Assistant in Systematic Botany, U.S. Department of Agriculture, 1900–1903, Assistant Botanist, 1903–12; Inspector General de la Sección Estaciones Experimentales, Argentine Republic, 1912; Agricultural Explorer in Chile, Peru, and Bolivia, U.S. Department of Agriculture, 1913, Associate Botanist, 1913–28, Botanist, 1928.

†Wilbur, Blake Colburn (123) 1492 Emerson, P-p (PA 8593)
Clinical Instructor in Surgery

A.B., Stanford, 1922; M.D., Harvard, 1925. Medical Resident, Huntington Memorial Hospital, Boston, 1925; Surgical Interne, Presbyterian Hospital, New York City, 1926–27; Special Student, Mayo Clinic, 1928; Visiting Surgeon, Southern Pacific General Hospital, San Francisco, 1928–29; Consulting Surgeon, Southern Pacific Hospital, since 1930. At Stanford since 1930.

[†Wilbur, Ray Lyman Lagunita Knoll* (PA 4646)
President of the University]

A.B., Stanford, 1896, A.M., 1897; M.D., Cooper Medical College, 1899; LL.D., California, 1919, Arizona, 1919, Pennsylvania, 1925, New Mexico, 1928, Pittsburgh, 1929, Chicago, 1930, Duke, 1930, Maryland, 1930, Princeton, 1930, Rochester, 1930, Tusculum, 1931, Yale, 1931, New York University, 1931, University of Porto Rico, 1931; Sc.D., Syracuse, 1924, Western Reserve, 1931. Assistant in Physiology, Stanford University, 1894–96, Instructor, 1896–97; Lecturer and Demonstrator in Physiology, Cooper Medical College, 1899–1900; Assistant Professor, Stanford, 1900–1903; Professor of Medicine, and Dean of the Stanford School of Medicine, 1909–16. At Stanford, 1894–97, 1900–1903, and since 1909.

§Wildman, Murray Shipley
Professor of Economics

A.B., Earlham, 1893; Ph.D., Chicago, 1904. Professor of History and Economics, Central College (Mo.), 1904–5; Instructor in Economics, University of Missouri, 1905–6, Assistant Professor, 1906–8; Acting Assistant Professor, University of Chicago, Summer Quarter, 1909; Assistant Professor of Economics and Commerce, Northwestern University, 1909–11, Professor, 1911–12. At Stanford 1912–30.

†Wiley, George Martin, Jr. (4) Stanford Union-*1727* (PA 3121)
Acting Professor of Education

A.B., Union College, A.M., 1903; Pd.D., New York State College for Teachers, 1920; LL.D., Syracuse University, 1920. Vice-Principal, St. Johnsville (N.Y.) High School, 1899–1901; Principal, High School, Palatine Bridge (N.Y.) 1901–2, East Aurora (N.Y.), 1902–3, Dunkirk, 1903–5; Superintendent of Schools, Dunkirk, 1905–8; State Inspector of Schools, 1908–10; Chief of Administration, 1910–17; Director of Examinations and Inspection, New York State Department of Education, 1917–20; Assistant Commissioner of Education, Secondary Division, since 1920; Visiting Professor of Education, Teachers College, Columbia, Summer Session, 1923; Ohio State University, Summer Session, 1926, Oregon State College, Summer Session, 1928.

Williams, Everett Charles (123) 14 Stanford Union* (PA 3121)
Associate Professor of Military Science and Tactics

Graduate, Field Artillery School (Fort Sill, Okla.), 1926. Advanced Course, 1929. Instructor, Field Artillery School (Fort Sill, Okla.), 1917–19, 1926–29. Captain, Field Artillery, U.S. Army. At Stanford since 1929.

§ Deceased, December 24, 1930.

WILLITS, JOHN METTS (123) 401 College Way, P* (PA 8706)
Instructor in Marketing (Graduate School of Business)

A.B., Stanford, 1925. At Stanford since 1930.

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Acting Professor of Philosophy

A.B., Southwestern, 1902; A.M., Vanderbilt, 1903; Ph.D., Cornell, 1905; LL.D., Southwestern, 1914. Fellow in Philosophy, Vanderbilt, 1902–3; Sage Scholar in Philosophy, Cornell, 1903–4, Sage Fellow in Philosophy, 1904–5; Professor of Philosophy, Washburn College, 1905–11; Docent and Assistant in Philosophy, Harvard, 1911–12; Professor of Philosophy, Wells College, 1912–14; Acting Professor of Philosophy, Bryn Mawr College, 1914–15; Professor of Philosophy, Boston University, 1915–26; Professor of Philosophy, Colorado College, 1926–30.

†WINTERBURN, JOHN CHARLES (123) 217 Madroño, P-991 (PA 21675)
Assistant Director, School of Hygiene and Physical Education

B.S., University of Pittsburgh, 1923. Director of Athletics, Donora (Pa.) Schools, 1923–24; Instructor in Physical Education and Major Sports, San Mateo Union High School, 1924–25; Director of Football and Basketball, Santa Ana Polytechnic High School, 1925–26. At Stanford since 1926.

†WINTERS, ARTHUR YVOR (1234) Palo Alto* (PA 6012)
Instructor in English

A.B., Colorado, 1925, A.M., 1925. Instructor in Romance Languages, University of Idaho, 1925–27; Graduate Student, Stanford, 1927–28. At Stanford since 1928.

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Associate Clinical Professor of Medicine (Neurology)

A.B., University of California, 1905, M.S., 1907; M.D., Johns Hopkins University Medical School, 1911. Research Assistant, Herzstein Laboratory, University of California, 1906–7; Medical House Officer, Johns Hopkins Hospital, 1911–12; Major, M.C., U.S.A., May 1917 to September 1919. At Stanford since 1913.

†WOLTER, HARRY MEIGGS (123) 692 Mirada (PA 5729)
Director of Baseball

At Stanford since 1923.

[†WOOD, CASEY ALBERT Stanford University
Lecturer in Zoölogy (Ornithology)]

C.M., M.D., University of Bishop's College, 1877, D.C.L., 1903; C.M., M.D., McGill University, 1906, LL.D., 1921. Professor of Chemistry and Pathology, University of Bishop's College, 1878–85; Student, Berlin, Vienna, Paris, London, 1887–89; Professor of Ophthalmology, Chicago Medical School, 1890; Professor of Ophthalmology, College of Physicians and Surgeons, Chicago, 1898–1906; Professor of Ophthalmology, Northwestern University, 1906–8; now Emeritus Professor, University of Illinois College of Medicine; Colonel, M.R.C., U.S.A., 1920; Hon. Curator of Birds, Smithsonian Institution.

†WOOD, GRANVILLE (1234) 360 Leland, P* (PA 8697)
Examining Physician, Men Students' Health Service

LL.B., Stanford, 1913, A.B., 1920, M.D., 1924.

†WOOLSEY, CHESTER HOWARD (123) 2220 Sacramento, SF-sf
Clinical Instructor in Surgery (Genito-Urinary) [(Fillmore 0941)

B.S., California, 1895, M.D., 1901. Assistant to Chair of Clinical Medicine, University of California, 1902–6; State Bacteriologist, California, 1903–4; Assistant to Chair of Genito-Urinary Surgery, Cooper Medical College, 1911–12. At Stanford since 1912.

†WOOTON, FLAUD CONAROE (123) 1648 California, P*
Instructor in Citizenship

B.S., Oregon, 1926, A.M., 1927. Instructor in Education, University of Oregon, 1925–27; Acting Instructor in Citizenship, Stanford, 1927–28; Director of Studies, International School of Geneva (Switzerland), 1928–30. At Stanford, 1927–28, and since 1930.

†Working, Holbrook (1234) 2351 Ramona, P* (PA 8445)
Economist, Food Research Institute

A.B., Denver, 1915; A.M., Cornell, 1919; Ph.D., Wisconsin, 1921. Instructor in Economics, Cornell, 1916–17, 1919; Fellow in Economics, Wisconsin, 1919–20; Assistant Professor of Agricultural Economics, Minnesota, 1920–23, Associate Professor, 1923–25; Acting Professor of Economics, University of Chicago, Summer Quarter, 1928. At Stanford since 1925.

†Wrenn, Charles Gilbert (1) 1641 California, P* (PA 22589)
Acting Instructor in Education

A.B., Willamette, 1926; A.M., Stanford, 1929. Dean of Boys, Raymond (Wash.) High School, 1926–27; Principal, Oregon Normal School Training School, 1927–28; Instructor in Education and Psychology, Oregon State Normal School, Summer Quarters, 1927, 1928; Instructor in Education, University of Oregon, Summer Quarter, 1929; Executive Secretary, Vocational Guidance Committee, Stanford, since 1929.

†Wyckoff, Harry Alphonso (123) 417 Oakland, Oakland-o
Associate Professor of Medicine [(Glencort 2859)

A.B., Stanford, 1907, M.D., 1916. Head of Department of Physical Education, Los Angeles High Schools, 1907–12; Bacteriologist, San Francisco Board of Health Laboratories, 1917; Pathologist, Napa State Hospital, 1918. At Stanford since 1919.

[†Yerington, Henry Herbert 2330 Larkin, SF-sf (Ordway 0995)
Associate Clinical Professor of Pediatrics]

M.D., Columbia University, 1908. Student, Stanford University, 1900–1904, Bellevue Hospital, New York, 1909–10; House Physician, Pediatric Service, Bellevue Hospital, 1909–10; Instructor in Pediatrics, Cooper Medical College, 1910–11; Visiting Pediatrician, San Francisco Hospital; Assistant, Visiting Staff, Children's Hospital, San Francisco. At Stanford since 1913.

Yost, Mary (1234) 532 Lasuen-*934* (PA 6624)
Dean of Women, and Lecturer in English

A.B., Vassar, 1904, A.M., 1912; Ph.D., Michigan, 1917. Graduate Scholar, Vassar College, 1904–5; Assistant in English, Wellesley College, 1906–7; Instructor in English, Vassar College, 1907–13; Fellow, University of Michigan, 1913–15; Assistant Professor, Vassar College, 1915–21; Reader, College Entrance Examination Board, 1912–18, Head Reader and Examiner, 1918–21. At Stanford since 1921.

§Young, Stewart Woodford (12)
Professor of Physical Chemistry

B.S., Cornell, 1890. Assistant in Chemistry, Cornell University, 1890–91; Instructor in Chemistry, Swarthmore College, 1891–93. At Stanford 1893–1931.

Zapoleon, Louis B. (1234) 2351 Ramona, P*
Economist, Food Research Institute

U.S. Department of Agriculture, 1909–16; Agricultural Economist and Chief, Agricultural Division, U.S. Tariff Commission, 1917–25; served as Expert, Ways and Means and Senate Finance Committees, 1921–22. At Stanford since 1925.

## ASSISTANTS IN INSTRUCTION AND RESEARCH

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†Atkinson, Ernst Albert, Psychology (124) 1952 Waverley, P-p (PA 7605)

A.B., Denver, 1920; A.M., Montana, 1922.

§ Deceased, April 9, 1931.

Bacon, Harold Maile, Mathematics (1234) 565 Lasuen-*1144* (PA 4527)
A.B., Stanford, 1928, A.M., 1929.

Bardwell, Kathleen (Mrs.), Research Assistant, Physiology (1234)
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Barker, Horace Albert, Physiology (4)
Hopkins Marine Station, Pacific Grove-pg
A.B., Stanford, 1929

Bayer, Leona Mayer (Mrs.), Medicine (1234)
1652 Taylor, SF-sf (Prospect 5894)
A.B., Stanford, 1923, M.D., 1928. Resident in Medicine, Cook County Hospital, Chicago, 1928–29.

Benson, Lyman, Biology and Botany (123) 513 Encina-*1076* (PA 3121)
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Blaine, Gertrude, Physical Education (Roble Gymnasium) (1234)
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519 Webster, P-p
A.B., University of California at Los Angeles, 1930; A.M., Stanford, 1931.

†Bolin, Rolf, Oceanography (1234)
Hopkins Marine Station, Pacific Grove-pg
A.B., University of Utah, 1925; A.M., Stanford, 1929.

Boone, Thomas Harold, Research Assistant, Bacteriology (4)
430 Forest, P-p (PA 7370)
A.B., Stanford, 1927.

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Menlo Junior College, MP-mp (PA 6141)
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Boyle, Samuel Frederick, Surgery (Ophthalmology) (1234)
Stanford Hospital, SF-sf (West 8000)
M.D., C.M., University of Manitoba, 1917. Resident House Surgeon, St. Boniface Hospital, 1916–17; Captain, Royal Army Medical Corps, 1917–19 (Military Cross); Resident Surgeon, North Middlesex Hospital, London, 1919–20; Instructor in Anatomy, University of Manitoba, 1921–23; Graduate Student, Vienna, 1929–30.

†Brady, Joseph George, Medicine (Tuberculosis) (1234)
466 Flood Bldg., SF-sf (Sutter 0098)
M.D., Cooper Medical College, 1902.

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San Francisco Hospital, SF-sf (Mission 0820)
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U.S. Veterans' Hospital, P-p (PA 6126)
A.B., Stanford, 1930, A.M., 1931.

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Brown, Robert Dixon, Chemistry (4) 224 Everett, P-p
B.S., Alabama, 1926, M.S., 1928.

Brown, Morden Grant, Physics (123) 1013 Ramona, P-*658* (PA 21584)
A.B., Stanford, 1929.

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A.B., Stanford, 1930.

Bruml, Leonard Foote, Obstetrics and Gynecology (1234)
Lane Hospital, SF-sf (West 8000)
A.B., Stanford, 1926, M.D., 1930. Interne, Lane and Stanford Hospitals, 1929–30.

Bunyan, James, Research Assistant, Russian Revolution Institute (Hoover War Library) (1234) Stanford Union
A.M., Columbia, 1919.

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A.B., San Jose State Teachers College, 1930.

Burnham, DeWitt Kinne, Medicine (234)
3625 Jackson, SF-sf (Bayview 4329)
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Butter, Franklin Alfred, Jr., Mathematics (123)
175 W. San Carlos, SJ-sj (Ballard 4680)
A.B., Stanford, 1930, A.M., 1931.

†Calkins, Robert Deblois, Jr., Economics (123)
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B.S., William and Mary, 1925; A.M., Stanford, 1929.

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1361 S. Marion, Denver, Colo.
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Campbell, Malcolm, Research Assistant, Psychology (23)
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A.B., Reed, 1928; A.M., Oregon. 1930.

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Carley, Leon Alanson, Debating (12) 231 Stanford Union-*2665* (PA 3121)
A.B., Stanford, 1929.

Casper, Erving J., Surgery (San Francisco Hospital) (1234)
Stanford Medical School, SF-sf
M.D., Cooper Medical College, 1912. Visiting Staff of San Francisco Polyclinic, Mt. Zion Hospital, Mary's Help Hospital, and San Francisco Hospital.

Catterall, John Leslie, Classical Literature (23) 948 Ramona, P-p
A.B., British Columbia, 1926.

Chambers, Jack Valentine, Research Assistant and Assistant Custodian Bacteriology (234) 764 Channing, P-p
A.B., Stanford, 1930.

†Chapman, George Eric, Obstetrics and Gynecology (1234)
490 Post, SF-sf (Garfield 4458)
M.D., C.M., Trinity (Toronto), 1903. Captain, C.A.M.C., Canada, 1917–19.

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A.B., California, 1922, A.M., 1923.

†Chope, Harold DeLos, Public Health and Preventive Medicine (1234) Lane Hospital, SF-sf (West 8000)
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†Cilley, Herbert Arthur, Obstetrics and Gynecology (1234) Lane Hospital, SF-sf (West 8000)
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†Coblentz, Lambert B., Assistant Lecturer, Medicine (San Francisco Hospital) (1234) 516 Sutter, SF-sf (Sutter 3878)
M.D., Cooper Medical College, 1904.

†Cooley, Chester Lynn, Obstetrics and Gynecology (Pre-Natal Clinic) (1234) 490 Post, SF-sf (Garfield 1210)
A.B., Stanford, 1924, M.D., 1928.

Cope, Danella Straup (Mrs.), Research Assistant, Jacques Loeb Laboratory (1234) Hopkins Marine Station, Pacific Grove-pg
A.B., Utah, 1923; A.M., Stanford, 1926, Ph.D., 1930.

Cornell, Willis Allison, Research Assistant, Electrical Engineering (123) 545 Bryant, P-p (PA 8818)
A.B., Stanford, 1931.

†Cowan, Clarence Bert, Surgery (Ear, Nose, Throat) (1234) 568 Belvedere, SF-sf (Lockhaven 3480)
A.B., Stanford, 1919, M.D., 1923.

Cramer, Sophia M., Education (1) 1028 Bryant, P-p (PA 21221)
A.B., Stanford, 1904.

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A.B., Stanford, 1929.

Davis, George Elton, Physics (123) 727 Cowper, P-*1193* (PA 22498)
A.B., Cornell University, 1919, A.M., Rochester, 1929.

Dayton, John Gordon, Chemistry (1) 185 Bryant, P-*1256* (PA 4866)
A.B., Stanford, 1930.

Detrick, Helen Hopkins (Mrs.), Research Assistant, Medicine (Neuropsychiatry) (1234) 2380 California, SF-sf (Walnut 6680)
A.B., California, 1920, A.M., 1921; M.D., Johns Hopkins, 1925.

Donnay, Joseph Désiré Hubert, Romanic Languages (123) 758 Waverley, P-*2393* (PA 5993)
Candidat Ingénieur, Liège, 1922, Ingénieur civil des Mines, 1925; Ph D., Stanford, 1929.

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A.B., Carleton, 1928.

Dutton, Gayle Roberds, Chemistry (234) Orange, Los Altos-*341*
A.B., Stanford, 1930.

Eaton, Bourne Goodridge, Physics (123) 543 Encina-*1205* (PA 3121)
A.B., Stanford, 1929.

Evans, George Pirtle, English (123) 745 Homer, P-p
B.S., Vanderbilt, 1917; A.M., Chicago, 1923.

†Fanning, John L., Dermatology (1234) 1127 11th, Sacramento-s (Main 528)
M.D., College of Physicians and Surgeons, 1918. Basic course in Dermatology, Graduate School, University of Pennsylvania, 1927–28.

Farnsworth, Helen Cherington (Mrs.), Research Assistant, Food Research Institute (1234) 715 Salvatierra* (PA 8155)
B.S., Ohio State University, 1924, A.M., 1924; Ph.D., Stanford, 1930.

Fenton, Jessie Chase (Mrs.), Research Assistant, Psychology (Gifted Children) (4) Menlo Heights-*1607* (PA 6880)
A.B., Stanford, 1919, A.M., 1921.

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A.B., Stanford, 1925, M.D., 1929.

Fetter, Klara, Research Assistant, Russian Revolution Institute (Hoover War Library) (1234) 660 Salvatierra*
Graduate, Royal Hungarian University (Budapest), 1922, A.M., 1922, Ph.D., 1923. Instructor in Hungarian, University of Pittsburgh, 1927–29.

Field, Sally Miller (Mrs.), Physiology and Chemistry (124) 607 Lasuen (PA 8191)
A.B., Stanford, 1929, A.M., 1930.

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A.B., Stanford, 1929, Engineer, 1931.

Fletcher, Charles D., Medicine (Tuberculosis) (San Francisco Hospital) (1234) 450 Sutter, SF-sf (Davenport 1810)
A.B., University of California, 1923, M.D., 1927. Interne, San Francisco Hospital, 1926–27; Assistant Resident in Neurology and Resident in Tuberculosis, Montefiore Hospital, New York, 1927–28.

Foster, Bruce Ellsworth, Physics (123) 315 Stanford Union* (PA 3121)
A.B., Colorado College, 1927; A.M., University of Oregon, 1929

Gankin, Olga Hess (Mrs.), Research Assistant, Russian Revolution Institute (Hoover War Library) (1234) 2340 McGee, Berkeley* (Thornwall 3966)
Ph.B., Brown, 1925, A.M., 1926; Ph.D., Chicago, 1929.

Gebhardt, Louis Philipp, Jr., Research Assistant, Bacteriology (1234) 510 Washington, P-p (PA 21392)
A.B., Stanford, 1929.

Gilhuly, Marjorie Louise, Research Assistant, Political Science (123) Sigma Kappa (PA 6800)
A.B., University of California at Los Angeles, 1930.

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Ph.G., College of Physicians and Surgeons, California, 1903, M.D., 1907. Interne, Sacramento County Hospital, Sacramento, 1907–8; Assistant, Medical Clinic, San Francisco Polyclinic, 1913–14; Assistant, Genito-Urinary Clinic, San Francisco Polyclinic, 1914–17, Chief since 1917; Public Lecturer for Bureau of Social Hygiene, California State Board of Health, 1917–19.

Green, Helen James, Research Assistant, Psychology (123) Menlo Heights-*1782* (PA 3381)
A.B., Columbia, 1924.

Guerrero, Lina Jacob (Mrs.), Education (2)
1140 Greenwood, P-p (PA 4370)

A.B., Stanford, 1914, A.M., 1925.

†Gwinn, Charles Dudley, Dental Clinic (1234)
490 Post, SF-sf (Davenport 1195)

D.D.S., California, 1917. Lieutenant, Dental Corps, U.S.N.R.F., 1917–19; Instructor in Extraction, Dental Department, University of California, since 1919; Visiting Dentist, French Hospital, since 1920.

Hackney, A. Wayne, Physics (1234) 324 Union-*2302*

A.B., Stanford, 1930.

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2186 California, SF-sf (Fillmore 2330)

A.B., Stanford, 1917.

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216 Union-*823* (PA 3121)

A.B., Whittier, 1929; Engineer, Stanford, 1931.

Harding, Victor Hunt, Political Science (12) 940 College, P-*2623*

A.B., Stanford, 1925.

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800 Monterey Blvd., SF-sf (Randolph 1232)

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1946 Washington, SF-sf (Ordway 4456)

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A.B., Oregon, 1922, A.M., 1927.

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A.B., University of California at Los Angeles, 1930; A.M., Stanford, 1931.

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2408 Clay, SF-sf (Fillmore 7601)

A.B., Stanford, 1925, M.D., 1929.

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138 Forest, Pacific Grove-pg

A.B., LaVerne, 1921; A.M., Manchester, 1922.

Howard, Lot Duncan, Anatomy (14) 351 Homer, P-p (PA 21816)

A.B., Stanford, 1929.

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B.S., Nebraska, 1910, A.M., 1915; M.D., Columbia, 1914. Interne, First Surgical Division, Bellevue Hospital, 1914–16; U.S. Navy Medical Corps, 1917–19; Assistant in Otolaryngology, San Francisco Polyclinic, 1919–22; Eye, Ear, Nose, and Throat Service, South San Francisco Hospital, since 1919; Eye Clinics, Vienna, 1924, London, 1925.

Jallade, Adèle, Romanic Languages (4) 708 Salvatierra-*1296* (PA 21736)
Diplôme d'études secondaires, Reims (France), 1911; A.B., University of Southern California, 1925, A.M., 1928. Teacher of French, Surbiton School for Girls, 1913–14; Instructor in French, University of Southern California, since 1924.

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10 Walnut, SF-sf (Walnut 4564)
M.D., Johns Hopkins, 1929. Surgical Interne, Johns Hopkins Hospital, 1929–30.

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Diploma in English and Literature, University of London, 1924. Lecturer on Russian, Birmingham University and Midland Institute, Birmingham (England), 1921.

†Kaufman, Bernard, Medicine (Laguna Honda Home) (1234)
2000 Van Ness, SF-sf (Graystone 8212)
M.D., Cooper Medical, 1909.

Kelly, Edith Louise, Romanic Languages (123)
1837 San Lorenzo, Berkeley-b
A.B., Stanford, 1911.

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A.B., New Mexico, 1924; A.M., Stanford, 1928.

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A.B., University of Oregon, 1920; A.M., Stanford, 1930.

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Lane Hospital, SF-sf (West 8000)
A.B., Stanford, 1926, M.D., 1930.

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1160 Byron, P-p (PA 6670)
A.B., Stanford, 1926.

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Stanford Hospital, SF-sf (West 8000)
A.B., University of Minnesota, 1922, M.D., 1926. Interne, Minneapolis General Hospital, 1926–27; Resident, Stanford Hospital (Radiology), 1927–28; Resident and Instructor, University of Michigan, 1928–29.

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Stanford Medical School, SF-sf (West 8000)
B.S., Washington, 1925, M.S., 1926, Ph.D., 1930.

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2936 McClure, Oakland-o (Templebar 8121)
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Linn, Carl Barnes, Chemistry (123) 865 Hamilton, P-*110*
B.S., Nebraska, 1929.

Linscott, Phyllis Mar, Swimming and Diving (Roble Gym.) (2) 128 Mariposa, P-p

A.B., Stanford, 1929.

von Lubken, Philip, Mathematics (123) *229* Stanford Union-*1861* (PA 3121)

A.B., Whitman, 1927.

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A.B., Stanford, 1928.

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A.B., Stanford, 1925, M.D., 1929.

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A.B., Indiana University, 1905; A.M., Stanford, 1928. Teacher of History, Evansville (Ind.) High School, 1905–7; Instructor in Psychology, State Teachers College, Chico, 1921–22; Counselor and Teacher of Social Studies, Palo Alto Union High School, since 1922.

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B.S., Colorado State Agricultural, 1917, M.S., 1926.

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A.B., Kansas, 1917, A.M., 1917, M.D., 1931.

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A.B., Juniata, 1925.

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A.B., Stanford, 1920.

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A.B., Antioch, 1929.

Masson, Edmond Eric, Romanic Languages (4) *326* Hawthorne, P-p

A.B., Stanford, 1929, A.M., 1930.

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A.B., Oregon, 1920; M.D., Stanford, 1928.

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M.D., Jefferson Medical College, 1921. Associate in Research, Hooper Foundation, 1927; Visiting Physician, San Francisco Hospital, 1928.

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A.B., Stanford, 1927.

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2285 Chestnut, SF-sf (Fillmore 1942)
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1880 Fulton, P* (PA 3495)
A.B., Stanford, 1922, J.D., 1924.

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A.B., University of Madrid, 1919; A.M., Wisconsin, 1930

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450 Sutter, SF-sf (Garfield 5566)
A.B., California, 1924, M.D., 1928.

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A.B., Hanover, 1920; A.M., Stanford, 1926.

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545 University, Reno, Nev.
A.B., Mt. Holyoke, 1929.

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A.B., Maine, 1929; A.M., Stanford, 1930.

Nelson, Edward Gene, Economics (123) 281 Stanford, P-*622*
B.S., Southern California, 1926, A.M., 1928.

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601 Flood Bldg., SF-sf (Garfield 0404)
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515 Cornell, P-Station A, p (PA 8422)
A.B., Stanford, 1930.

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2401 Sacramento, SF-sf (Walnut 1379)
A.B., Stanford, 1926, M.D., 1930.

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499a Governor's-*1276*
A.B., Stanford, 1930.

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2241 Jackson, SF-sf (Walnut 6366)
A.B., Stanford, 1921.

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524 Post, SF-sf (Prospect 4400)
A.B., Stanford, 1924, M.D., 1928.

Olsen, Elwood Richard, Medicine (1234) 450 Sutter, SF-sf (Garfield 1809)
A.B., California, 1918, M.D., 1922. Resident, Mt. Zion Hospital, 1922–23; Shriners' Hospital, 1923–28; Assistant Dermatologist, Mt. Zion Hospital, 1923–27.

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B.S., University of Arizona, 1930. Student Instructor in Physical Education, Arizona, 1929–30.

†Ottinger, Millard R., Surgery (San Francisco Hospital) (1234) 516 Sutter, SF-sf (Garfield 32)

M.D., College of Physicians and Surgeons, San Francisco, 1918.

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A.B., Nebraska, 1923, B.S., 1924; M.D., Tulane University of Louisiana, 1926. House Officer in Medicine, San Francisco Hospital, 1927–28.

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A.B., Pomona, 1925; A.M., Chicago, 1926.

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A.B., Califo nia, 1924, M.D., 1928

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A.B., Smith, 1930.

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M.D., Johns Hopkins, 1918. Intern e and Assistant Resident Surgeon, Palmerton Hospital, Pennsylvania, 1918–20; Assistant Resident in Gynecology, Lakeside Hospital, Cleveland, 1920–21; Instructor in Pathology, University of California, 1921–23.

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B.S., Princeton, 1926.

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A.B., California, 1916. Head of English Department, Palo Alto Union High School, since 1921.

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B.S., Antioch, 1929.

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A.B., Cornell University, 1928.

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M.D., Loyola University, 1915. Chief of Eye Service, Base Hospital, Kelley Field, 1917–18.

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A.B., Stanford, 1928, A.M., 1930.

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B.S., Idaho, 1912; A.M., Stanford, 1928.

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434A Fillmore, SF-sf (Hemlock 8478)
M.D., National University, San Salvador, 1925. Ex-interne for Rosales Hospital, San Salvador, 1921–23; Ex-assistant to Chief Surgeon, Rosales Hospital, 1924; Ex-physician and Surgeon, International Railway of Central America, Division of El Salvador, 1925–26.

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450 Post, SF-sf (Douglas 6751)
A.B., California, 1921, M.D., 1925. Assistant in Pediatrics, University of California, 1925–26; University of Vienna, February 1928 to April 1929; Work in Medicine and Public Health, Moscow, Leningrad, Paris, and London, April–June 1929.

Ritter, Lucy Elizabeth, Research Assistant, Political Science (123)
169 Roble-*1386*
A.B., Stanford, 1930, A.M., 1931.

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A.B., Stanford, 1930.

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2303 Sacramento, SF-sf (Walnut 0874)
A.B., Southern California, 1924; M.D., Stanford, 1929.

†Roberts, Gilbert Jay, Surgery (Ear, Nose, Throat) (1234)
Lane Hospital, SF-sf (West 8000)
A.B., University of Illinois, 1925; M.D., Stanford, 1930.

†Robesky, Donald Albert, Physical Education (Football) (1)
1307 University, P-p (PA 5625)
A.B., Stanford, 1929.

Rohden, Elizabeth Helen, German (123) 113 Byron, P*
A.B., Washington, 1919.

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2480 Washington, SF-sf (Fillmore 8151)
A.B., Stanford, 1925, M.D., 1929.

Schuck, Victoria, Research Assistant, Political Science (123) 333 Portola, P-p
A.B., Stanford, 1930, A.M., 1931.

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2140 Pacific, SF-sf (Walnut 3617)
M.D., Cooper Medical College, 1911.

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Ph.C., B.S., University of Washington, 1927; A.M., Stanford, 1931. Volunteer Worker in Pharmacology, Stanford, 1927–28, 1929–30.

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A.B., Utah, 1929; A.M., Stanford, 1931.

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A.B., Bucknell, 1929; A.M., Stanford, 1930.

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Smith, Vera Florence, Research Assistant, Bacteriophage (123)
548 Webster, P*
A.B., Reed, 1928.

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A.B., Stanford, 1930, A.M., 1931.

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B.S., Mississippi State Teachers College (Hattiesburg), 1927; A.M., Stanford, 1930.

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909 Hyde, SF-sf (Ordway 3535)
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846 Middlefield, P-*2037* (PA 21292)
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2474 Washington, SF-sf (Fillmore 4115)
A.B., Stanford, 1928, A.M., 1930.

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A.B., Stanford, 1930.

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Graduate, Smolny Institute, Petrograd, 1907; Special Student, Raevskie Kursy, 1910–11, University of Michigan, 1921–*22*; Editorial Office of the *Living Age*, Boston, 1922–27.

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A.B., Goucher, 1929.

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A.B., Stanford, 1922.

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A.B., Wesleyan, 1929.

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A.B., University of California at Los Angeles, 1926.

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A.B., Stanford, 1926, M.D., 1930.

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B.S., California, 1919; A.M., Stanford, 1929

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B.S., Idaho, 1923.

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A.B., California, 1925; A.M., Stanford, 1930.

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M.D., Jefferson Medical College, 1912. King's County Hospital, Brooklyn (N.Y.), 1912–15; Major, U.S.M.R.C., 1918; Instructor, University of Oregon Medical School, 1915–24.

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A.B., College of the Pacific, 1922.

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A.B., Hastings, 1925.

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A.B., Stanford, 1929.

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Miller, Barbara, Stenographer, Law School (123) Los Altos-la
A.B., California, 1928.

Moy, Herbert Bing, Physiology (23) 538 Cowper, P-p
A.B., Stanford, 1927.

Murphy, Evelyn Eaton (Mrs.), Secretary, English (1234) 644 Seneca, P-p (PA 5732)
A.B., Stanford, 1925.

Myers, George Sprague, Zoölogy (1234) 733 Homer, P-p
A.B., Stanford, 1930.

Newnan, Gladys, Bacteriology (1234) Mountain View-Rt. 1, Box 366, mv (MV 4431)
A.B., Stanford, 1924.

Oldroyd, Ida Shepard (Mrs.), Curator, Geology (1234) 548 Alvarado-*1198* (PA 21209)

†Oldroyd, Tom Shaw, Assistant Curator, Geology (1234) 548 Alvarado-*1198* (PA 21209)

†Redeker, Ivan Monroe, High-Voltage Laboratory (1234) 1828 Webster, P-p (PA 3694)
A.B., Stanford, 1923.

Reed, Warren DeWitt, Guggenheim Laboratory (1234) 625 Middle, MP-mp
A.B., Stanford, 1931.

Rieckenberg, Dorothea, Nurse, Public Health Service (1234) 837 Partridge, MP* (PA 21563)

Sarson, Evelyn G. (Mrs.), Secretary, Guggenheim Laboratory (1234) 351 Bryant Court, P-p

†Schall, Ulysses A., Mining Engineering (1234) 429 Ruthven, P-p (PA 6864)

†Scott, Thomas Benjamin, Storekeeper, Chemistry (1234) 448 College, P-Station A, p

Shively, Betty Theresa, Secretary, Publicity (123) 615 Salvatierra* (PA 8393)
A.B., Stanford, 1930.

Snoddy, Charles, Secretary and Technical Assistant, Military Science and Tactics (1234) 439 Emerson, P* (PA 7737)

Stroup, Elbert B., Assistant Technician, Anatomy (1234) 627 Emerson, P-p (PA 21925)

Stuart, Burton, Physics (1234) Palo Alto-Station A, p

Taylor, Gladys E., Secretary, Physiology (1234) 356 Kingsley, P* (PA 4954)

†Tihonravov, Alexander A., Geology (1234) 886 Boyce, P-p

†Tucker, Orville Hugh, Jr., School of Hygiene and Physical Education for Men (1234) 355F San Benito, MP-*3006* (PA 3375)
A.B., Stanford, 1924, Engineer, 1927.

Tuxford, Eileen L. (Mrs.), Secretary, History (1234) 321 Lytton, P*

Uhlman, Walter, Engineer, Mechanical Engineering (1234) 305 Emerson, P-p (PA 4661)

Vickers, Russell Rogers, Physiology (4) 564 University, P-p
A.B., Stanford, 1931.

Voorheis, Virginia Grace, Secretary, Physics (1234) 513 Salvatierra
A.B., Stanford, 1929.

Webber, Janet, Office Assistant, Graduate School of Business (1234) 147 Mariposa, P-p (PA 4625)

Wells, Margaret S. (Mrs.), Librarian, Education (1234) 351 Cowper, P-*41* (PA 4859)

White, Bertha Deane, Assistant Secretary, Economics (123) 551 Salvatierra-*2352*
A.B., Swarthmore, 1926.

White, Marian Adele, Bacteriology (1234) 195 Santa Rita, P* (PA 21774)
A.B., Stanford, 1927.

Wilson, Elwood Jasper, Assistant, Freshman Football (1) 145 Toyon-*717* (PA 3121)
A.B., Stanford, 1930.

Wood, Zella (Mrs.), Physical Education (Roble Gymnasium) (12) Redwood City-Box *32*, R.F.D., rc (R 1108J)

Wright, Edward, Assistant Mechanician, Physics (1234) 319 Central, P-p

## ASSISTANTS IN ADMINISTRATION

### OFFICE OF THE PRESIDENT

Huneke, Helen Josselyn, Secretary to Dean of Women (1234) 565 Salvatierra-*2482* (PA 8578)
A.B., Stanford, 1928.

Jacobson, David S., Assistant to Dean of Men (123) *227* Seale, P-*1664* (PA 8182)
A.B., Stanford, 1930.

### OFFICE OF THE REGISTRAR

Adams, Marjorie, Secretary, Appointment Service (1234) 401 Lytton, P-p

Bolender, Louise Kelly (Mrs.), Assistant (1) 909 Cowper, P-p (PA 21612)
A.B., Stanford, 1920.

Buchanan, Dorothy, Record Clerk, Appointment Service (1234) Palo Alto-Box 431, p (PA 3688)
A.B., Stanford, 1925.

Clark, Gladys P. (Mrs.), Recommendation Clerk, Appointment Service (134) 358 Kingsley, P-p (PA 21830)

Cook, Armista Marguerite, Assistant (234) 736 Webster, P-Box 833, p

Ewell, Bernice Charlotte, Assistant (1234) Lasuen-*1007* (PA 4521)

Hill, Lucy (Mrs.), Assistant (4) 160 Melville, P-p

Stevens, Florence Tuttle, Assistant (1234) 424 Seneca, P-p (PA 8571)

Tudor, Cynthia, Assistant (1234) 401 Lytton, P-p

†Wrenn, Charles Gilbert, Assistant (Vocational Guidance) (1234) 1641 California, P* (PA 22589)
A.B., Willamette, 1926; A.M., Stanford, 1929.

## THE LIBRARY

Andrews, Gladys, Assistant, Periodical Division (1234) Madroño-*21* (PA 8953)
A.B., California, 1922.

Beckett, Richard C., Assistant, Circulation Division (4) 1029 Ramona, P-p (PA 4977)

†Belenky, Lucas, Assistant, Circulation Division (1234) 1102 Guinda, P-p (PA 3653)
A.B., Stanford, 1927.

Benepe, M. Acelia (Mrs.), Assistant, Circulation Division (1234) 114 Rinconada, P-p (PA 6975)
A.B., Stanford, 1928.

Boezinger, Lina, Assistant in Cataloguing, Hoover War Library (1234) 262 Everett, P-p (PA 6481)

Bollinger, Fred, Assistant, Circulation Division (234) 557 Lasuen
A.B., Southeast Missouri State Teachers College, 1927.

Buchanan, A. Russell, Assistant Reference Librarian, Hoover War Library (1234) Palo Alto-Box 431, p (PA 3688)
A.B., Stanford, 1927, A.M., 1928.

Butt, Helen (Mrs.), Cataloguer, Lane Medical Library (1) 2250 Bay, SF-sf (Fillmore 9389)

Elkins, Beatrice, Assistant, Periodical Division (1234) 1100 Fulton, P-p (PA 5556)

Emerson, Ethel Eunice, Assistant, Order Division, Hoover War Library (1234) 711 Middlefield, P-p (PA 7957)
A.B., Stanford, 1917.

Forbes, Theresa, Assistant, Catalogue Division (1234) 474 Everett, P-p

Glaeser, Alice A., Assistant, Lane Medical Library (1234) 1413 Montgomery, SF-sf (Davenport 4473)

Gray, Dorothy Sewall, Assistant, Catalogue Division (23) 513 Salvatierra (PA 8953)
A.B., Stanford, 1929.

Griswold, Marion, Assistant (4) 458 Channing, P-p (PA 8596)
B.S., Wyoming, 1928.

Jones, Gwen, Assistant, Order Division (1234) 429 Forest, P-p (PA 8450)

Junkert, Mabel A. (Mrs.), Secretary, Hoover War Library (1234)
151 Melville, P-p (PA 5359)

†Junkert, William E., Assistant, Circulation Division (4)
151 Melville, P-p (PA 5359)

Krassovsky, Dimitry M., Bibliographer, Slavic Collection, Hoover War Library (1234) 321 Cowper, P-p (PA 4614)

Loomis, Hyla G., Assistant Secretary, Office of the Director (1234)
344 Kipling, P-*905* (PA 8608)

McCurdy, Allan H., Assistant, Circulation Division (4) 328 Union-*2606*

McNeill, Thelma, Assistant, Law Library (1234) 498 Bryant, Sunnyvale-s

Maier, Louise, Secretary to the Director (1234)
790 Hanover, P-Station A, p (PA 7550)

Nelson, Ina Landweer (Mrs.), Cataloguer (1234)
1931 The Alameda, Santa Clara-sc

Rempel, Laura K. (Mrs.), Assistant, Document Division (1234)
605 Gilman, P-*41*
A.B., Bluffton, 1926.

Renne, Elsie, Assistant, Order Division (1234) 455 Forest, P-p (PA 22439)

Rensch, Ethel G. (Mrs.), Assistant, Circulation Division (1234) Los Altos-la

†Rensch, Hero Eugene, Assistant, Circulation Division (1234) Los Altos-la
A.B., Pomona, 1915; A.M., Stanford, 1929.

Roberts, Chauncey S., Assistant, Circulation Division (4)
558 Hawthorne, P-p

Robertson, Muriel, Assistant, Catalogue Division (1234)
Mountain View-*545* (MV 890)

Sawe, Elizabeth B., Assistant, Reference Division (4)
332 Forest, P-p (PA 7389)
A.B., Stanford, 1928.

Schoenheit, Helen Mar, Acting Law Librarian (1234)
Cupertino-c (Santa Clara 162M)
A.B., Stanford, 1926.

Scibird, Ruth, Assistant, Reference Division (1234)
513 Salvatierra-*804* (PA 8953)

Stockle, Louise, Assistant, Reference Division (1234)
Mountain View-mv (MV 4216)
A.B., California, 1923.

Sullivan, Lloyd L., Assistant, Circulation Division (234)
900 Waverley, P-p (PA 3419)
A.B., Stanford, 1928.

Torbert, Harold Chester, Assistant, Lane Medical Library (12)
2321 Sacramento, SF-sf (West 2836)
A.B., Stanford, 1929.

Webster, George E., Assistant, Circulation Division (4)
Stanford Univ.-*1546*

## OFFICE OF THE COMPTROLLER

### *Accounting Department*

Buschke, Bessie (Mrs.), Assistant Secretary to Assistant Comptroller (12) 1238 Cowper, P-p (PA 5897)

Clarkin, John P., Bookkeeper (1234) 145 Monroe, Redwood City-rc

Dorman, Vivian Hodgen (Mrs.), Private Exchange Operator (1234) 526 Homer, P-p (PA 7530)

†Drugg, Walter C., Special Accountant (1234) Stanford Blvd., MP-*803* (PA 21681)

Dustman, Elmer, Clerk (1234) Stanford Firehouse

Fournie, Lillian, Endowment Clerk (1234) 252 Ramona, P-p (PA 4757)

Goddard, Phyllis M. (Mrs.), Clerk (123) 863 Channing, P-p (PA 5730)

Hall, Elsie (Mrs.), Private Exchange Operator (1234) 649 Fulton, P-p (PA 8113)

Haskett, Eleanore R., Secretary to Assistant Comptroller (1234) 1238 Cowper, P-p (PA 5897)

Jepson, Gertrude (Mrs.), Clerk and Assistant Cashier (1234) 1119 Byron, P-p (PA 21677)

Lesh, Dorothy, Private Exchange Operator (234) 127 Cowper, P-p (PA 4505)

Leslie, Daisy (Mrs.), Clerk (4) 260 Vine, SJ-sj

Moscovitz, Pearl, Cashier (1234) 1000 Sutter, SF* (Franklin 0421)

O'Day, Mae Maloney (Mrs.), Bookkeeper (1234) 866 2nd, P-Station A, p

Pollock, Sadie, Payroll Clerk (1234) 420 Oak, P-p (PA 3417)

†Rathman, George A., Budget Accountant (1234) 653 Stanford, P-Station A, p (PA 4807)

Sandford, Helen C., Clerk (1234) 886 Sutter, SF-sf (Prospect 10349)
A.B., Syracuse, 1919; M.B.A., University of Michigan, 1928.

Schroder, Evelyn, Clerk (1234) 144 Partridge, MP-mp (PA 3615)

Thompson, Rosalind (Mrs.), Bookkeeper (1234) 860 Asbury, SJ-sj

†Yancey, Lee L., Accountant (1234) 173 Waverley, P-p (PA 21749)

### *Mimeograph Bureau*

Ramsey, Agnes Craig (Mrs.), Mimeographer (1234) 572 Lasuen-*838* (PA 5740)

Boulware, Alice, Assistant, Mimeograph Bureau (1234) 170 Bryant, P* (PA 5389)

Tronslin, Maude S. (Mrs.), Secretary to Dr. Jordan (1234) 1111 Middlefield, P-p (PA 21548)

*Lane and Stanford University Hospitals, San Francisco*

Allan, Elsie D., Hostess (1234) 2418 Washington, SF-sf (Fillmore 2030)

Cavanaugh, Genevieve, Information Clerk (1234) 1808 Octavia, SF-sf (Graystone 4771)

Cunningham, Marien (Mrs.), Cashier (1234) 742 Neuchatel, Burlingame-b (B 5532J)

Eriksen, Einar, Bookkeeper (1234) 129 Joost, SF-sf (Delaware 6319)

Foran, Katherine, Telephone Operator (1234) 2645 Sacramento, SF-sf (West 0477)

Gosrow, Dixie E. (Mrs.), Admission Clerk (1234) 961A Union, SF-sf (Franklin 5374)

Griffin, Hiram E., Night Cashier (1234) 2852 Pine, SF-sf (Fillmore 1494)

Hammond, Myrtle, Information Clerk (1234) 2300 Webster, SF-sf (Fillmore 5454)

Heard, Ida, Telephone Operator (1234) 2645 Sacramento, SF-sf (Fillmore 6162)

Hughes, Margaret, Telephone Operator (1234) 2217 Webster, SF-sf (West 2742)

King, Letha F. (Mrs.), Telephone Operator (1234) 525 Thirty-sixth Ave., SF-sf (Evergreen 9810)

McBride, Berenice (Mrs.), Stenographer and Clerk (1234) 2280 Pine, SF-sf

Miller, Annie, Information Clerk (1234) 1080 Green, SF-sf (Prospect 2187)

Norvell, Driskill A., Bookkeeper (1234) 2339 Chestnut, SF-sf

Padgett, V. W., Night Information Clerk (1234) 2180 Washington, SF-sf

Phelan, Genevieve (Mrs.), Business Office Representative in Clinics (1234) 1814 Taylor, SF-sf (Franklin 5740)

Scott, Vera, Bookkeeper (1234) 114 Somerset, RC-rc (R 1816 W)

Splain, Marie, Mail Clerk (1234) 411 Munich, SF-sf (Randolph 6035)

Sterner, Eleanor (Mrs.), Secretary to Physician Superintendent (1234) 826 Monterey Blvd., SF-sf (Randolph 6100)

*Corporation Yard*

†Allen, Everett A., Foreman Plumber (1234) Stanford Park-*624* (PA 3954)

†Banham, Frank D., Mechanician (1234) 1253 Byron, P-p (PA 3344)

†Corwin, George W., Assistant Mechanician (1234) 827 Webster, P-p (PA 4844)

†Dugan, Robert E., Fire Marshal (1234) 561 Lomita (PA 5111, PA 7239)

†Facciolla, Ben., Cement Foreman (1234) 2091 El Camino Real, P-p

†Hackenberger, William H., General Storekeeper (1234) 536 Addison, P-p (PA 5264)

†McDonnell, James W., Assistant Superintendent of Buildings and Grounds (1234) 618 Fulton, P-p (PA 3976)

Maier, Henry, Landscape Gardener (1234) 325 Occidental, Burlingame-b (B 490)

Miller, Carl F., Foreman, Garage (1234) 454 Forest, P-p (PA 5668)

†Riechers, A., Foreman Carpenter (1234) 1111 Alma, P-p (PA 6873)

†Schroder, Edgar, Clerk, Yard Office (1234) 144 Partridge, MP-mp (PA 3615)

†Thornton, Joseph, Labor Foreman (1234) 235 Kipling, P-p (PA 7466)

†Waterman, Edward H., Chief Engineer, Power House (1234) 567 Lytton, P-p

†Webb, L. C., Foreman Painter (1234) Columbia, MP-mp

*Dormitories*

†Ayres, Elliott H., Manager, Men's Dormitories (1234) 826 Homer, P-*2578*
A.B., Stanford, 1930.

†Gage, Bertram A., Custodian, Encina, Sequoia, and Toyon Halls (1234) 443 Tennyson, P-p (PA 3595)
B.S., Colorado Agricultural College, 1897.

Karl, Charles Edward, Custodian, Union (1234) *232* Stanford Union

Mort, Iva (Mrs.), Night Matron, Roble Hall (1234) 181 Roble-*1361* (PA 6167)

Saunders, Gilbert Buff, Custodian, Branner Hall (1234) Branner-*523* (PA 3121)
A.B., Stanford, 1927.

*Foreman Outside Properties*

†Frehe, Fred W. (1234) 418 Santa Teresa-*617*

*Purchasing Department*

†Widman, Fred, Purchasing Agent (1234) 1517 Walnut, Berkeley* (West 8000)

Salicetti, Sara (Mrs.), Secretary to Purchasing Agent (1234) 215 Laurel, P*

Tronslin, Virginia (Mrs.), Clerk (1234) 360 Kingsley, P-p

*Purchasing Department, Stanford University Hospitals*

†Widman, Fred, Purchasing Agent and Storekeeper (1234) 1517 Walnut, Berkeley* (West 8000)

Easley, Annie May, Receiving Clerk (1234) 2404 Clay, SF-sf (Fillmore 8829)

Nolan, Helen, Stenographer (1234) 1474 Golden Gate, SF-sf (West 3030)

Suter, Henrietta, Assistant Storekeeper (1234) 621 Eleventh Ave., SF-sf (Skyline 7134)

*Students' Co-operative Purchasing Association*

†Ayers, Elliott H., Manager (1234) 826 Homer, P-*2578* (PA 7457)
A.B., Stanford, 1930.

Saunders, Gilbert Buff, Assistant Manager (1234) 302 Branner-*523* (PA 4119)
A.B., Stanford, 1927.

*University Press*

†Appleby, Grant, Plant Superintendent (1234) 668 Oberlin, P-*3001* (PA 3649)

Baker, Marie, Bookkeeper (1234) 360 Fulton, P-p (PA 6924)

Barnes, Arthur C., Foreman, Composing Room (1234) 1029 Parkinson, P-p (PA 8565)

†Borsdamm, John, Foreman, Bindery (1234) 798 Palo Alto, P-p (PA 4573)

Casey, Frances M., Bookkeeper (1234) 357 Fulton, P-p (PA 5410)

Frye, Grace I., Stenographer (34) 1110 Waverley, P-p (PA 21233)

†Goodspeed, Dewey, Accountant (1234) 1076 Forest Court, P-p (PA 7841)
A.B., Utah, 1924.

Jackson, Hartley F., Typographic Designer (1234) 12 Stanford Union-*3001* (PA 3121)

Johnson, Ethel, Bookkeeper (1234) Palo Alto-Box 472, p (PA 4030)

Krogh, Kathryn, Stenographer (1234) 951 Forest, P-p (PA 4459)

†Smith, C. Brainard, Foreman, Pressroom (1234) 1211 Fulton, P-p (PA 8357)

†Steffan, Augustus W., Proofroom (1234) 166 Bryant, P-p (PA 6046)

Storey, Dean, Advertising Manager, Publishing Department (1234) 1744 Cowper, P-*3001*
A.B., Stanford, 1926.

Willard, Martha (Mrs.), Editorial Department (1234) 1246 Emerson, P-*3001*
A.B., Knox, 1912.

OFFICE OF THE TREASURER

Pryor, Kathleen, Stenographer (1234) 129 Birch, Redwood City-rc

BOARD OF ATHLETIC CONTROL

Aten, Imogene, Bookkeeper, A.S.S.U. Office (1234) 1404 Floribunda, Burlingame-b (B 4576)

Bell, Lura, Bookkeeper (34) 1040 Fulton, P-p (PA 22200)

Coe, Eloise (Mrs.), Stenographer (1234) 3225 El Camino Real, P-Station A, p (PA 7361)

Cunningham, Goldie (Mrs.), Bookkeeper (12) 534 Guinda, P-p

†Denny, Wallace, Trainer, Encina Gymnasium (1234) 110 Waverley, P-p (PA 5665)

DuPrau, Eunice, Office Manager and Secretary to General Manager (1234) 1004 Emerson, P* (PA 6877)

Goesle, Alva (Mrs.), Assistant Secretary, School of Hygiene and Physical Education (1234) 143 Rinconada, P-*3006* (PA 7155)

Gordon, Caroline (Mrs.), Bookkeeper (1234) 144 Byron, P-p (PA 21731)

Harned, Charlotte, Stenographer, School of Hygiene and Physical Education (1234) 455 El Escarpado (PA 3636)
A.B., Simpson College, 1928.

Hopkins, Ann (Mrs.), Stenographer (12) 549 Stanford, P-55 (PA 21550)

†Irwin, Jacob Carney, Manager of Ticket Department (1234) 120 Byron, P-p (PA 6692)
A.B., Stanford, 1926.

†Liebendorfer, Don E., News Service (1234) 173 Madroño, P-p (PA 3251)
A.B., Stanford, 1925.

McDonald, Emanuel B., Superintendent of Athletic Buildings and Grounds (1234) Track House

†Moffitt, George W., Manager, Encina Gymnasium Store (1234) 411 College, P-Station A, p (PA 3386)

Nissen, Elsie, Private Exchange Operator (234) Palo Alto-Box 721, Highway, p

Oeschger, Clara Gemur (Mrs.), Stenographer (1234) 2361 Middlefield, P-Box 335, Station A, p

Osborne, Frances, Assistant Secretary, School of Hygiene and Physical Education (1234) 2034 Green, SF-sf (Fillmore 6553)
A.B., Kentucky, 1928.

†Phillips, William L., Clerk, Encina Gymnasium Store (1234) 455 Sheridan, P-Station A, p

Phippen, Frank, Clerk, Grounds Department (1234) 240 California, P-Station A, p

Sonnicksen, Jennie C., Private Exchange Operator (1) Newell Road, P-p (PA 5619)

Stevens, Inez, A.S.S.U. Stenographer (1234) 926 Cowper, P-p (PA 8295)

†Tucker, Orville Hugh, Jr., Engineer (1234) 355F San Benito, MP-*3006* (PA 3375)
A.B., Stanford, 1924, Engineer, 1927.

DINING HALLS

Callahan, Mozelle (Mrs.), Stock Clerk (1234) Fairoaks, P-p

§Case, Charlotte B. (Mrs.), Bookkeeper (1)

Frye, Grace, Stenographer (1) 1110 Waverley, P-p (PA 21233)

Gunn, Lucy, Bookkeeper (234) 283 Lytton, P-*1064*

Hurd, Frances, Stenographer (234) 335 Bryant, P-p (PA 7591)

Wood, Harry A., Accountant (1234) 1651 Market, SF-*91*

§ Deceased, October 24, 1930.

# ORGANIZATION

## FOUNDATION

Stanford University was established under an Act of the California Legislature, approved March 9, 1885. The Founding Grant, executed November 11, 1885, was made public at a meeting of the Board of Trustees, held in San Francisco, November 14, 1885. The cornerstone of the Inner Quadrangle was laid May 14, 1887, and the institution opened to students October 1, 1891.

## NATURE, OBJECT, AND PURPOSE OF THE UNIVERSITY

"We, Leland Stanford and Jane Lathrop Stanford, husband and wife, grantors, desiring to promote the public welfare by founding, endowing, and having maintained upon our estate known as the Palo Alto Farm, and situated in the Counties of San Mateo and Santa Clara, State of California, United States of America, a university for both sexes, with the colleges, schools, seminaries of learning, mechanical institutes, museums, galleries of art, and all other things necessary and appropriate to a university of high degree, to that end, and for that purpose, do hereby grant," etc.

"And that the trust hereby created may be executed according to the wishes of the grantors and each of them, they do hereby designate the Nature, Object, and Purposes of the Institution hereby founded, to be: Its nature, that of a University, with such seminaries of learning as shall make it of the highest grade, including mechanical institutes, museums, galleries of art, laboratories, and conservatories, together with all things necessary for the study of Agriculture in all its branches, and for mechanical training, and the studies and exercises directed to the cultivation and enlargement of the mind; Its object, to qualify students for personal success and direct usefulness in life; Its purpose, to promote the public welfare by exercising an influence in behalf of humanity and civilization, teaching the blessings of liberty regulated by law, and inculcating love and reverence for the great principles of government as derived from the inalienable rights of man to life, liberty, and the pursuit of happiness."

## NAME OF THE UNIVERSITY

"Since the idea of establishing an institution of this kind for the benefit of mankind came directly and largely from our son and only child, Leland, and in the belief that had he been spared to advise as to the disposition of our estate, he would have desired the devotion of a large portion thereof to this purpose, we will that for all time to come the institution hereby founded shall bear his name, and shall be known as The Leland Stanford Junior University."

## MANAGEMENT AND CONTROL OF THE UNIVERSITY

The general management and control of the institution is vested in a Board of Trustees, originally numbering twenty-four, and chosen for life. By the Amending Act of May 31, 1899, the number of trustees was reduced to fifteen, with future elections for a term of ten years. The Board of Trustees fills all vacancies.

### POWERS AND DUTIES OF THE TRUSTEES

"The Trustees shall have power and it shall be their duty:

"To appoint a President of the University, who shall not be one of their number, and to remove him at will.

"To fix the salaries of the President, professors, and teachers, and to fix them at such rates as will secure to the University the services of men of the very highest attainments.

"To establish and maintain at such University an educational system which will, if followed, fit the graduate for some useful pursuit, and to this end to cause the pupils, as early as may be, to declare the particular calling which in life they may desire to pursue.....

"To prohibit sectarian instruction, but to have taught in the University the immortality of the soul, the existence of an all-wise and benevolent Creator, and that obedience to His laws is the highest duty of man.

"To have taught in the University the right and advantages of association and co-operation.

"To afford equal facilities and give equal advantages in the University to both sexes.

"The Board of Trustees shall annually report all their proceedings to the person who for the time being shall fill the office of Governor of the State of California, and shall accompany such report with a full account of their financial operation for the preceding year, and with a statement of the financial affairs of the institution."

### POWERS AND DUTIES OF THE PRESIDENT

"It shall be the duty of the Trustees to give to the President of the University the following powers:

"To prescribe the duties of the professors and teachers; to remove professors and teachers at will; to prescribe and enforce the course of study and the mode and manner of teaching; such other powers as will enable him to control the educational part of the University to such an extent that he may justly be held responsible for the course of study therein and for the good conduct and capacity of the professors and teachers."

### AMENDMENTS TO THE FOUNDING GRANT

A clause in the Founding Grant reserved to the grantors the right to alter, amend, or modify the terms and conditions of the grant in important particulars. Under this provision amendments were made by Mrs. Stanford under date of June 1, 1897, May 31, 1899, March 28, 1902, October 3, 1902, and June 1, 1903. These amendments were concerned mainly with matters of detail, but provided also "that the number of women attending the University as students shall at no time ever exceed five hundred."

An amendment to the Constitution of the State of California, adopted November 6, 1900, "permitted, approved, and confirmed all the trusts, estates, terms, and conditions" of the Founding Grant and of all the deeds, conveyances, and other instruments made and delivered before that date, and authorized the Legislature, under certain conditions, to exempt the property of the University from taxation. Article 13 of the State Constitution, as amended November 3, 1914, exempts from taxation the buildings, grounds (not exceeding one hundred acres), equipment, securities, and income, used exclu-

sively for educational purposes, of any educational institution of collegiate grade not conducted for profit.

## THE UNIVERSITY FACULTY

"The Trustees shall constitute the President and professors the faculty of the University, and shall prescribe their powers and duties as such."

Under the Articles of Organization, adopted by the Board of Trustees March 31, 1904, the power and authority of the University Faculty is vested in the Academic Council, consisting of the President of the University, the Professors and Associate Professors, the Librarian, the Registrar, the Academic Secretary, such Assistant Professors as have been upon the roll of the faculty for three years, whether as assistant professors or instructors, and such other officers of the University or members of the teaching staff as the Academic Council may, with the assent of the Board of Trustees, determine. On October 9, 1924, the following were included in the Academic Council: The Dean of Women, Dean of Men, Chaplain, and, under certain conditions, Teaching Specialists, and members of the Library Staff and Registrar's Office. On June 18, 1926, the Director of the Summer Quarter was added, also the members of the Food Research Institute listed as Economists, Junior Economists, and Research Associates.

All general University regulations, statutes, and rules as to matters within the province of the faculty, must be initiated in and passed by the Academic Council. The Academic Council has general power and responsibilitiy for the internal administration of the University, subject to express provisions contained in the Articles of Organization respecting the methods of exercising such powers through the President of the University, the Advisory Board, the Standing Committees, and the Department Faculties.

The Advisory Board consists of nine members of the rank of professor, one from each of the five department groups, and four chosen without reference to groups. All executive acts of general importance, such as recommendations for appointments, promotions, and dismissals, for the creation of new departments or chairs, etc., must be submitted by the President to the Advisory Board. The Advisory Board is also privileged to make such recommendations to the President, regarding policy, as it may decide by vote to be expedient, but no recommendations for appointments, promotions, or dismissals may originate with the Advisory Board.

The Executive Committee of the Academic Council consists of the President, Vice-President, Registrar, Academic Secretary, and two members from each department group elected by the Academic Council. The Executive Committee appoints the Standing Academic Committees of the Council, with the exception of the Graduate Study Committee which is elected by the Council.

The Standing Administrative Committees of the Council are appointed by the President.

The Department Faculties consist of the Professors, Associate Professors, Assistant Professors, and Instructors in the several departments, but only members of the Academic Council have the right to vote. A Department Faculty has direction of the work of instruction in the department and of the internal administration of the department, subject only to such control as is vested in the Board of Trustees, the President of the University, and the Academic Council. The Executive Head of the Department Faculty is designated annually by the President with the approval of the Advisory Board and of the Board of Trustees.

## SCHOOLS

The scope of the University is indicated by the following Schools which have been organized:

School of Biological Sciences (including Anatomy, Bacteriology and Experimental Pathology, Biochemistry, Botany, Experimental Psychology, Food Research, Hopkins Marine Station, Paleontology, Physiology, and Zoölogy).

Graduate School of Business.

School of Education.

School of Engineering (including Civil, Electrical, Mechanical, Military Science and Tactics, Mining).

School of Hygiene and Physical Education for Men.

School of Law.

School of Letters (including Classical Literature, English, Germanic Languages, Romanic Languages, Slavic).

School of Medicine.

School of Physical Sciences (including Chemistry, Geology, Mathematics, Physics).

School of Social Sciences (including Economics, History, Philosophy, Political Science, Psychology).

For the purpose of elections to the Advisory Board and Executive Committee the Schools of the University are divided into groups, as follows:

*Group I.* School of Letters.

*Group II.* School of Biological Sciences, School of Hygiene and Physical Education for Men, School of Medicine, Department of Hygiene and Physical Education for Women.

*Group III.* School of Physical Sciences.

*Group IV.* Graduate School of Business, School of Education, School of Law, School of Social Sciences.

*Group V.* School of Engineering.

The Hopkins Marine Station, located at Pacific Grove, on the Bay of Monterey, is a branch of the biological work of the University.

The Food Research Institute was organized in 1921 under grant from the Carnegie Corporation for the purpose of studying the production, distribution, and consumption of food. The Board of Directors consists of Dr. Carl Lucas Alsberg, Dr. Joseph Stancliffe Davis, and Dr. Alonzo Englebert Taylor.

## THE UNIVERSITY YEAR

The University year begins the first of October and is continuous throughout four quarters of approximately eleven weeks each. Any three quarters constitute an academic year.

The summer quarter differs from other quarters only as the courses of study in the various departments may be contracted, or expanded, or specialized to meet the needs of a particular constituency; or, as in Physiology and Zoölogy, where the summer program is transferred to the Hopkins Marine Station at Pacific Grove. The emphasis of the summer quarter is placed on advanced and graduate work. During the summer of 1931, provision has been made for an eight weeks' schedule for courses in Education. By holding extra sessions the full quarter's work can be accomplished in the allotted time and full credit given for each course.

## LOCATION

Stanford University is located in the Santa Clara Valley, thirty miles southeast of San Francisco, and is reached by the Coast Division of the Southern Pacific Railway, Palo Alto being the University station.* The advanced and clinical work in medicine is carried on in San Francisco, and part of the biological work of the University at Hopkins Marine Station, Pacific Grove.

The University Trust consists of over seven thousand acres, partly level and partly rising into the foothills of the Santa Cruz Range; about fifteen hundred acres have been set aside as the campus proper. The Bay of San Francisco is about three miles east of the University grounds. Across the bay the Mount Diablo Range rises to a height of over four thousand feet, the Lick Observatory crowning Mount Hamilton, the highest of the range. The Santa Clara Valley is one of the most attractive portions of the state in fertility, in natural beauty, and in the excellence of its climate. In winter the mercury rarely falls below 30 degrees, with an average midday temperature of about 55 degrees. In summer the midday temperature ranges between 60 degrees and 80 degrees, occasionally higher and lower, the average being about 70 degrees; the nights are cool, the usual range being from 50 degrees to 58 degrees. The rainfall, normally about eighteen inches, is chiefly confined to the months from December to April, inclusive.

## ENDOWMENT, INCOME, AND EXPENDITURES

The total assets of the University are approximately $43,500,000, of which approximately $30,000,000 represents the income-producing endowment. The investment in educational plant, buildings, and real estate amounts to $12,000,000, and the current operating assets are $1,500,000. The annual budget income from all sources is approximately $2,900,000, of which about $1,000,000, or 35 per cent, is derived from tuition and other student fees.

The total annual budget for academic purposes is about $2,300,000, which is approximately 80 per cent of the income. The annual expenditure for instruction and research alone is approximately $1,700,000, or 60 per cent of the income.

## BUILDINGS

The architectural design of Stanford University, with the detailed plan of the inner quadrangle group, Encina Hall, and the first three engineering buildings, was the work of Mr. Charles Allerton Coolidge, of the firm of Shepley, Rutan & Coolidge, Boston, Massachusetts. The library, men's gymnasium, pavilion, Encina Dining Hall, Toyon and Branner Halls are the work of Bakewell & Brown of San Francisco. In these newer buildings the original plan has been modified somewhat to give greater variety and interest, but the distinctive features have been preserved.

The central group of buildings, constituting two quadrangles, the one surrounding the other, is an adaptation of the mission architecture, and reproduces on an imposing scale the open arches, long colonnades, and red-tile roofing of the old Spanish missions of California. The Inner Quadrangle consists of twelve one-story buildings and the Memorial Church, connected by a continuous open arcade, and surrounding a court 586 feet long by 246 feet wide, or three and a quarter acres. The buildings are buff sandstone,

* Latitude = 37° 25′ 34″ North; longitude = $8^h\ 8^m\ 40.8^s$ West.

somewhat varied in color, the stonework of broken ashlar, with rough rock-face, and the roofs covered with red tile.

The fourteen buildings of the Outer Quadrangle are constructed of the same material and in the same general style as the Inner Quadrangle, with open arcades on the outside. The extreme length of the Outer Quadrangle is 894 feet.

*The Leland Stanford Junior Museum* is situated a quarter of a mile from the quadrangles, on the west side of the avenue to Palo Alto.

*The Chemistry Building,* located between the quadrangles and the Museum, consists of two separate structures—the main building and the Physical Chemistry Laboratory.

South of the central quadrangles are located the workshops of the Engineering departments, experimental laboratories, etc.

*Encina, Toyon, and Branner Halls,* situated east of the quadrangles, and *Sequoia Hall,* west of the quadrangles, are dormitories for men. Encina will normally accommodate four hundred and fifty students; Toyon and Branner each one hundred and fifty, and Sequoia one hundred. The extension of the *Stanford Union,* completed in 1922, furnishes dormitory accommodations for one hundred men, and includes a public dining room and cafeteria. *Roble Hall,* situated southwest of the quadrangles, near Lagunita, is the dormitory for women, and will accommodate two hundred and twenty-six students.

*Encina Dining Hall,* consisting of one central kitchen and eight separate dining rooms, furnishes accommodations for five hundred and fifty men.

*Encina Gymnasium,* for men, is a brick building with a frontage of 330 feet, situated north of Encina Hall and near the athletic grounds. There are two main divisions separated by a small court. The drill hall is 120 by 65 feet, with hard maple floor. There are rooms for special exercises, shower and locker rooms in each wing, ample offices, and space for storage and laundry. Three outdoor swimming pools, and adjacent tennis courts and athletic fields are available to all men.

*The Pavilion,* located south of Encina Gymnasium, is a building of brick and stone construction affording ample quarters for basketball games, with a gallery seating capacity of 2,700.

*The Stadium* is a bowl-shaped structure built on an earth embankment and has a seating capacity of 88,000. The field includes a quarter-mile track and 220-yard straightaway.

*Roble Gymnasium,* for women, is located on the north side of Santa Teresa Street about 300 feet west of its intersection with Lomita Drive, directly across the street from Roble Hall and the area set aside for future dormitories for women. The building consists of four main units, grouped about a central court, and an out-door swimming pool. The main pavilion is 60 by 110 feet, with a specially designed spring floor; the dance studio is 60 by 90 feet, and the administration wing 280 by 48. The shower and dressing-room wing is 50 by 235 feet, and a smaller pavilion, 21 by 42, provides additional space for indoor games. The administration wing includes a lounge, with connected kitchen, three small classrooms, and offices for the Women's Athletic Association in addition to offices for the staff. The building is of reinforced concrete construction, with tile roofs, and cost approximately $240,000, without equipment. Funds for the construction of the entire group were provided by the Board of Athletic Control.

*The Thomas Welton Stanford Art Gallery,* the first building of the second quadrangle group, containing four galleries designed for the exhibition of

paintings and other works of art, was a gift of Thomas Welton Stanford, brother of Senator Stanford, one of the founders of the University.

*The Library Building* is the central unit in the second quadrangle group. The ground floor provides a reading-room for the Hoover War Library, one for books set apart for collateral reading, a department of public documents, and administrative workrooms. On the main floor are the delivery hall, the reference and reading-rooms, a browsing-room, a periodical room, the card catalogue, and administrative offices; on the mezzanine and top floors are the Charlotte Ashley Felton Memorial Library and a number of rooms for seminars and special research work. Including the Hoover War Library, Lane Medical Library, and the Law Library, the University Libraries contain over 510,000 volumes.

The grounds immediately about the University, constituting the campus proper, have been reserved in part for experimental and ornamental purposes, in part as residence sites for members of the faculty.

*The School of Medicine Buildings* in San Francisco occupy four fifty-vara lots bounded by Clay, Sacramento, and Webster Streets. These consist of the Clinical and Laboratory Building, including Lane Hall; Lane Hospital, a brick and stone construction accommodating one hundred and eighty beds; and the Stanford University Hospital, a concrete structure, with a capacity of one hundred and thirty beds. The Lane Medical Library is situated on the corner of Sacramento and Webster streets, opposite the Clinical and Laboratory Building, and the Stanford School of Nursing on Clay Street, opposite the hospitals. The Library is a fireproof structure of Colusa sandstone, three and a half stories high, with steel stacks containing 70,000 volumes.

*The Hopkins Marine Station* is located on Cabrillo Point, Pacific Grove. The original building, the Alexander Agassiz Laboratory, is a three-story concrete structure 40 by 80 feet and provides the general laboratory and class rooms. The Jacques Loeb unit, a two-story concrete building 95 by 152 feet, provides special research laboratories, aquaria, and library. This unit, costing approximately $100,000, is a gift of the Rockefeller Foundation.

*The Harris J. Ryan High-Voltage Laboratory* is situated on Lasuen Street, about two miles southeast of the quadrangle. The main laboratory is 173 feet long by 60 feet wide, with a clearance of 50 feet from the floor to the lowest roof truss. The entire south side of the building can be opened by means of huge doors 42 feet by 46 feet, in order to permit clearance of 21 feet in all directions for the high-voltage transmission lines which pass out of the building on this side and extend for a distance of approximately one and a half miles in a southerly direction. The laboratory is equipped with the largest transformer set ever constructed, with a capacity of 2,100,000 volts. The building and equipment, costing approximately $314,000, were financed through gifts from the leading light and power companies and manufacturers of electrical equipment.

## CLUBHOUSES

*The Stanford Union*, a clubhouse for men, was projected by Herbert C. Hoover of the class of 1895, and built by contributions from students, alumni, faculty, trustees, and friends of the University. The Union Board is made up of three faculty members, three alumni, and three undergraduates, together with the Comptroller, the Dean of Men, and the President of the Associated Students. The management and control of the clubhouse is vested in an Executive Committee composed of members of the Union Board, as follows:

One faculty member, one alumnus, the Comptroller of the University, the Dean of Men, the President of the Associated Students, ex officio, and two undergraduate student members. An additional building, consisting of dining halls and dormitory accommodations for one hundred men, was completed in 1922.

*The Women's Clubhouse* provides a social center for the women of the University, with meeting rooms for various University organizations.

The two Union buildings and the Women's Clubhouse are connected by means of cloistered arcades surrounding a court half an acre in extent, with a fountain as the central feature, and diversified by trees, grass, and a variety of flowering shrubs and plants. The fountain was the gift of the Class of 1922.

# ADMISSION TO THE UNIVERSITY

## GENERAL REQUIREMENTS

Admission to the University may be granted with Graduate, Upper, or Lower Division standing. The number admitted is limited by the facilities that are available. Applicants to be accepted as candidates for admission must present satisfactory recommendations as to personal character, must offer the approved credentials required for the division concerned, and, for the Upper and Lower Divisions, must pass the college aptitude test. The method of selecting candidates is explained below. Application and other necessary blanks will be furnished by the Registrar on request, and the use of these official blanks is required. In applying for such blanks address: The Registrar, Stanford University, California.

## ADMISSION OF MEN

### Limitations

*Graduate Division.*—At present the total number of men admitted to the Graduate Division is not limited except for special restrictions in force in the School of Medicine, in the Graduate School of Business, and at the Hopkins Marine Station. In these groups applicants must first satisfy the general admission regulations, and then meet special requirements which are ordinarily on a competitive basis.

*Upper Division.*—The total number of men admitted to the Upper Division is not fixed but is limited to the facilities that can be provided. The exact number which can be accommodated will vary from year to year, as a result of changes within the University, and cannot be stated definitely in advance. It should be noted that the number of students who may enroll in Medicine is limited, and that fulfillment of pre-medical requirements does not guarantee admission to the School of Medicine. Admission to the Upper Division does not assure enrollment at the Hopkins Marine Station.

*Lower Division.*—The total number of men admitted to the Lower Division is limited to 350 for the autumn quarter and 50 for the winter quarter. (No new students are admitted to the Lower Division for the spring quarter.) At present an unlimited number may be admitted for the summer quarter *only* with the understanding that not more than 50 of such matriculants will be promised enrollment for succeeding quarters. The selection of these 50 students may be deferred until the end of the summer quarter, in order that scholarship records made during the quarter may be considered. Summer matriculants not thus selected may make application for succeeding quarters and will be considered on the same basis as other candidates.

In addition to the foregoing, 50 foreign or special students may be admitted during each academic year.

### Basis of Selection

In the Graduate Division, in groups where admission is limited, selection of applicants is made only on the basis of superior preparation and fitness for the work to be undertaken.

In the Upper and Lower Divisions, selection is made on the basis of superior fitness, taking into account scholarship, personal qualifications, and score on the college aptitude test.

In the Lower Division preference is given to approved candidates who pass the examinations of the College Entrance Examination Board (old plan or new plan) with an average grade of 75 or above.

The sons of graduates of the University, and of members of the faculty will be given priority in admission to the Upper and Lower Divisions until January, 1934.

### Foreign and Special Students

Candidates from foreign countries who present credentials equivalent to the requirements for admission to the University, and whose command of written and spoken English shall be deemed adequate for purposes of college study, may be admitted.

Men of considerable maturity, twenty-one years or older, who do not fulfill the scholarship requirements for first-year undergraduate standing, but whose incomplete preparation has been supplemented by practical training and experience of distinct educative value, may also be considered for admission as special students not candidates for a degree.

## ADMISSION OF WOMEN

### Limitations

The total number of women attending the University at any one time is limited to five hundred by the terms of the Founding Grant of the University. In addition, there are special restrictions in force in the School of Medicine, in the Graduate School of Business, and at the Hopkins Marine Station.

### Basis of Selection

In the Graduate Division, the selection of candidates is made on the basis of high scholastic attainment, personal qualifications, and special fitness for the work to be undertaken.

In the Upper and Lower Divisions selection is made on the basis of superior fitness, taking into account scholarship, personal qualifications, and score on the college aptitude test.

In the Lower Division, preference is given to approved candidates who pass the examinations of the College Entrance Examination Board (old plan or new plan) with an average grade of 75 or above.

The daughters of graduates of the University and of members of the faculty will be given priority in admission to the Upper and Lower Divisions until January, 1934, provided their qualifications place them among the first one hundred and fifty candidates, chosen on the basis of superior fitness, in any list where one hundred are to be selected (proportional numbers for larger or smaller lists).

A certain number of places are assigned each quarter to Upper and Lower Division candidates who made application under the regulations in force prior to February 21, 1921. Candidates admitted on this priority list for a particular quarter, who do not matriculate for that quarter, automatically lose their standing on the list, and will thereafter be considered only on the basis of superior fitness in competition with the other applicants.

### Assignment of Places

Under the 500-limit, the number of places open to new women students in October is approximately 140. Of these, 35 are provisionally assigned to approved candidates for graduate standing; 105 to approved candidates for undergraduate standing. (At present, applicants with advanced standing insufficient to meet Upper Division requirements will not ordinarily be selected for admission.)

### Application and Registration

Applications for admission (on blanks to be furnished by the Registrar) and credentials must be filed before the beginning of the quarter, as follows: May 1 for the autumn quarter, December 1 for the winter quarter, March 1 for the spring quarter, and June 1 for the summer quarter. If the numerical limit for the summer quarter is not reached on June 1, applications will be received after that date and until the list is complete.

Women who have matriculated in the University at the beginning of any autumn, winter, or spring quarter will be allowed to continue without further application, so long as scholarship and conduct are satisfactory, provided they present themselves for registration at the beginning of each quarter on the regularly appointed day. Special restrictions, stated below, apply to registration for the summer quarter, and to summer matriculants desiring to reregister for succeeding quarters. Places will not be held for women students after the regular registration day, except by permission of the Committee on Registration granted in advance.

### Summer Quarter Regulations

The regular lists for the summer quarter will be made up immediately after June 1. Matriculation for the summer quarter, however, does not insure registration for any succeeding quarter. Summer matriculants will be considered in the same category as other applicants, and will receive only the advantage which inheres in application before February 21, 1921, or in superior credentials. There is now no advantage in applying earlier than is necessary to fulfill preliminaries and furnish credentials before the date fixed for selection of candidates.

## COLLEGE APTITUDE TEST

A college aptitude test is required of all candidates for admission to the Upper and Lower Divisions.

When credentials are otherwise satisfactory, candidates who have failed to take the college aptitude test given by the University, or a similar acceptable examination, because of remoteness from examination centers or for other reasons satisfactory to the Committee on Admission and Advanced Standing, may be provisionally selected for admission. Such candidates may be denied admission, at the discretion of the Committee, if a score below 50 is obtained in the college aptitude test to be taken at Stanford University just before the beginning of the quarter for which admission is desired.

In February and March, the test is given in numerous centers in California, and outside the state wherever satisfactory arrangements for conducting the test can be made. The test is also given at the University a few days prior to the October, January, April, and June matriculation dates.

Following is the schedule of examinations to be given in 1931. A fee of

*five dollars* is charged, due at the time of the examination, to cover cost of examination, scoring, and organization of results for use in the educational guidance of students.

## CALIFORNIA

| | | | | |
|---|---|---|---|---|
| Bakersfield | Room 16, Administration Building, Kern County Union Junior College | Saturday | February 28, | 8:30 A.M. |
| Chico | High School | Friday | March 13, | 8:30 A.M. |
| El Centro | Central High School and Junior College | Monday | April 13, | 8:30 A.M. |
| Eureka | High School | Tuesday | March 3, | 9:00 A.M. |
| Fresno | State College | Wednesday | February 25, | 8:30 A.M. |
| Fullerton | Junior College | Wednesday | March 4, | 8:30 A.M. |
| Hollister | Room 5, San Benito County Junior College | Friday | March 20, | 8:30 A.M. |
| Hollywood | Small Auditorium, High School | Friday | March 6, | 1:15 P.M. |
| Long Beach | Junior College, Tenth and Ximeno | Thursday | March 5, | 8:30 A.M. |
| Los Angeles | Room 159, Polytechnic High School | Saturday | March 7, | 8:30 A.M. |
| Marysville | Yuba County Junior College | Thursday | March 12, | 8:30 A.M. |
| Modesto | Junior College | Thursday | March 5, | 8:30 A.M. |
| Monterey | Union High School | Thursday | March 19, | 8:30 A.M. |
| Mount Shasta City | Room 104, High School | Saturday | March 14, | 8:30 A.M. |
| Napa | Union High School | Friday | March 6, | 8:30 A.M. |
| Oakland | Room 308, Administration Building, Second Avenue and East Tenth St. | Saturday | March 7, | 9:00 A.M. |
| Ontario | Chaffey Junior College | Wednesday | April 15, | 8:30 A.M. |
| Pasadena | Room 200, Junior College | Saturday | April 11, | 8:30 A.M. |
| Riverside | Room 107, Junior College | Tuesday | April 14, | 8:30 A.M. |
| Sacramento | Junior College | Saturday | March 7, | 8:30 A.M. |
| San Diego | Senior High School | Monday | March 2, | 8:30 A.M. |
| San Francisco | Room 308, Administration Building, Second Avenue and East Tenth St. | Saturday | March 14, | 9:00 A.M. |
| San Jose | Conference Room, High School | Saturday | March 21, | 8:30 A.M. |
| San Luis Obispo | High School | Wednesday | March 11, | 8:30 A.M. |
| Santa Barbara | High School | Tuesday | March 10, | 8:30 A.M. |
| Santa Cruz | High School | Wednesday | March 18, | 8:30 A.M. |
| Santa Rosa | Library, Junior College | Thursday | March 5, | 8:30 A.M. |
| Stanford University | Assembly Hall | Saturday | March 28, | 8:30 A.M. |
| Stockton | High School | Friday | March 6, | 8:30 A.M. |
| Taft | Union High School and Junior College | Friday | February 27, | 8:30 A.M. |
| Ukiah | New High School Building | Wednesday | March 4, | 8:30 A.M. |
| Ventura | Junior College | Monday | March 9, | 8:30 A.M. |
| Visalia | Union High School | Thursday | February 26, | 8:30 A.M. |

## OUTSIDE OF CALIFORNIA

| | | | | |
|---|---|---|---|---|
| *Arizona* | | | | |
| Phoenix | Junior College | Saturday | February 28, | 9:00 A.M. |
| Tucson | Room 217, Agriculture Hall, University of Arizona | Saturday | March 14, | 9:00 A.M. |
| *Colorado* | | | | |
| Denver | Room 228, East High School | Saturday | March 14, | 9:00 A.M. |
| *Hawaii* | | | | |
| Honolulu | Room 116, Hawaii Hall, University of Hawaii | Saturday | March 14, | 9:00 A.M. |
| *Illinois* | | | | |
| Chicago | Room 110, Cobb Hall, University of Chicago, 58th St. and Ellis Ave. | Saturday | March 14, | 9:00 A.M. |

| | | | | |
|---|---|---|---|---|
| *Massachusetts* | | | | |
| Cambridge | Office, Palfrey House, Oxford Street | Saturday | March | 14, 9:00 A.M. |
| *Minnesota* | | | | |
| Minneapolis | Room 202, Old Law Building, Univ. of Minnesota | Saturday | March | 7, 9:00 A.M. |
| *Missouri* | | | | |
| St. Louis | Room 101, Northeast Hall, Washington University | Saturday | March | 14, 9:00 A.M. |
| *Nevada* | | | | |
| Reno | Room 211, Education Building, University of Nevada | Saturday | March | 14, 9:00 A.M. |
| *New Mexico* | | | | |
| Albuquerque | High School | Monday | February | 9, 9:00 A.M. |
| Roswell | New Mexico Military Institute | Thursday | February | 26, 9:00 A.M. |
| *New York* | | | | |
| New York City | Room 332, Macy Hall, Teachers College, Columbia University, 525 West 120th St. | Saturday | March | 7, 9:00 A.M. |
| *Ohio* | | | | |
| Cleveland | Psychological Laboratory, Western Reserve University, 11105 Euclid Ave. | Saturday | March | 14, 9:00 A.M. |
| Columbus | Room 324, Education Bldg., Ohio State University | Saturday | March | 14, 9:00 A.M. |
| *Oklahoma* | | | | |
| Tulsa | Room B8, Central High School | Saturday | April | 11, 9:00 A.M. |
| *Oregon* | | | | |
| Eugene | Room 324, Condon Hall, University of Oregon | Saturday | March | 14, 9:00 A.M. |
| Portland | Room 202, Lincoln High School | Saturday | March | 7, 9:00 A.M. |
| *Texas* | | | | |
| El Paso | Library Room, School Administration Bldg. | Saturday | March | 14, 9:00 A.M. |
| San Antonio | Room 11, Junior College, 419 S. Alamo Street | Saturday | March | 14, 9:00 A.M. |
| *Utah* | | | | |
| Salt Lake City | Room 313, Museum Building, University of Utah | Saturday | March | 14, 9:00 A.M. |
| *Washington* | | | | |
| Seattle | Room 338, Philosophy Hall, University of Washington | Saturday | March | 14, 9:00 A.M. |
| Spokane | Room 205, Lewis and Clark High School | Saturday | March | 14, 9:00 A.M. |
| Walla Walla | Whitman College, Whitman Memorial Building, Office of Professor Bratton | Saturday | March | 7, 9:00 A.M. |

## ADMISSION TO THE GRADUATE DIVISION

The requirements for graduate standing are fulfilled by graduates of colleges and universities of recognized standing whose credentials evidence ability and promise, and who expect to become candidates for advanced degrees, or for teaching or administrative recommendations, or who purpose to pursue regular advanced, professional, or research courses.

Admission to the University with graduate standing does not necessarily imply immediate admission to candidacy for an advanced degree. For details concerning the requirements for advanced degrees consult pages 168 173.

Special restrictions are in force in the School of Medicine, in the Graduate School of Business, and at the Hopkins Marine Station. In these groups applicants must first satisfy the general admission regulations, and then meet special requirements which are ordinarily on a competitive basis.

Application for admission must be made on the blank furnished by the University, and the candidate must designate on this blank the School in which he desires to choose his major subject. All credentials must be filed with the Committee on Admission and Advanced Standing at the Registrar's Office on or before the following dates:

*Women candidates.*—May 1 for the autumn quarter, December 1 for the winter quarter, March 1 for the spring quarter, June 1 for the summer quarter.* Selection will be made after these dates, but actual matriculation in the University will be permitted only when all requirements have been fulfilled prior to the day of the quarter for which the selection has been made.

*Men candidates* should file application and credentials early enough to receive assurance of admission before Registration Day, thus avoiding needless expense and disappointment.

(The special application dates for students desiring to register in Medicine will be found in the *Announcement of the School of Medicine.*)

The credentials required are: (1) Personal application for admission with graduate standing, including application fee of five dollars; (2) official transcript of all college work completed including certificate of degrees received; (3) statements of personal qualifications on blanks furnished by the University.

## ADMISSION TO THE UPPER DIVISION

Candidates for admission to the Upper Division must have completed collegiate work which is satisfactory in quantity and quality.

The quantity requirement is met by graduates of approved junior colleges and by those who have completed the equivalent of at least 87 quarter units (two years) at an institution of recognized standing. Credit for physical or military training will not be accepted for meeting this requirement.

The quality of the work will be considered satisfactory if the average grade of the entire previous record, and of the last quarter (or semester), is at least equivalent to the quality represented by the average grade of C at this University, where the grading scale includes A, B, C, and D as passing grades. The determination of the equivalence of the average grades of any institution is based upon the experience of this University with students who have transferred from the school concerned.

Application for admission must be made on the blank furnished by the University, and the candidate must designate on this blank the School in which he desires to choose his major subject. All credentials must be filed with the Committee on Admission and Advanced Standing at the Registrar's Office on or before the following dates:

*Women candidates.*—May 1 for the autumn quarter, December 1 for the winter quarter, March 1 for the spring quarter, and June 1 for the summer quarter.*

*Men candidates.*—September 10 for the autumn quarter, December 10 for the winter quarter, March 10 for the spring quarter, and June 10 for the summer quarter. After June 10 applications for the summer quarter may still be received, and may be granted if facilities are available.

Selection will be made after these dates, but actual matriculation in the University will be permitted only when all requirements have been fulfilled prior to the first day of the quarter for which the selection has been made.

* After June 1 applications for the summer quarter may still be received, and may be granted if the numerical limitations have not been reached.

(The special application dates for students desiring to register in Medicine will be found in the *Announcement of the School of Medicine.*)

The credentials required are: (1) Personal application for admission with Upper Division standing, including application fee of five dollars; (2) official transcript of all college work completed, including statement of honorable dismissal from the institution last attended; (3) statements of personal qualifications, on blanks furnished by the University; (4) record of any college aptitude or similar test other than that given by Stanford University.

## ADMISSION TO THE LOWER DIVISION

### With Advanced Standing

Applications for admission to the Lower Division with advanced standing will be received from candidates who, in addition to the completion of the requirements for first-year undergraduate standing, have satisfactorily completed collegiate work at an institution of recognized standing, the amount being less than that required for the Upper Division. The quality of the work will be considered satisfactory if the average grade of the entire previous record, and of the last quarter (or semester), is at least equivalent to the quality represented by the average grade of C at this University, where the grading scale includes A, B, C, and D as passing grades. The determination of the equivalence of the average grades of any institution is based upon the experience of this University with students who have transferred from the school concerned.

Application for admission must be made on the blank furnished by the University, and all credentials must be filed with the Committee on Admission and Advanced Standing at the Registrar's Office on or before the following dates: May 1 for the autumn quarter, December 1 for the winter quarter, and June 1 for the summer quarter.* (No new students are admitted to the Lower Division for the spring quarter.)

The credentials required are: (1) Personal application for admission to the Lower Division, including application fee of five dollars; (2) complete high-school record (except for men candidates who have completed a full year or more of collegiate work with satisfactory grades); (3) statements of personal qualifications; (4) official transcript of all college work completed, including a statement of honorable dismissal from institution last attended (regular transcript form of the institution to be used); (5) record of any college aptitude or similar test other than that given by Stanford University.

### With First-Year Undergraduate Standing

Candidates for admission to the Lower Division with first-year undergraduate standing may fulfill the scholarship requirements, as explained below, either (I) by completion of a regular four-year high-school course, or its equivalent; or (II) by passing the examinations of the College Entrance Examination Board.

#### SCHOLARSHIP REQUIREMENTS

*I. Without examination.*—The scholarship requirements for first-year undergraduate standing are fulfilled *without examination* (1) by duly recommended graduates of approved four-year preparatory schools who present

* After June 1 applications for the summer quarter may still be received, and may be granted if the numerical limitations have not been reached.

15 units of recommending (certificate) grade (including at least 2 units in English); (2) by duly recommended graduates of approved three-year senior high schools who present 12 units of recommending grade completed in the senior high school, and 3 units of recommending grade completed in the last year of a junior high school. At least 2 units of English must be included. A total amount of 3 units may be granted for the work covered in the last year of a junior high school upon the condition that three regular subjects are carried for the entire school year with an average grade of B or 2; (3) by duly recommended graduates of approved preparatory schools presenting credentials covering the completion of 15 units of which at least 12 are of recommending grade (*a*) provided that the average of the total high-school record and the average of the work of the last two years is not less than B, on the basis that A, B, and C are the passing grades, or (*b*) provided the score obtained in the college aptitute test does not fall below the Stanford median.

Where the school does not distinguish between a passing and a recommending (certificate) standard, a subject to be accepted as of recommending grade must be at least 5 per cent higher than the lowest passing grade. The first part of a continued subject, even if below the recommending standard, may be credited provided the last part is of recommending grade and the average of the two parts is of recommending grade. Subjects below the recommending grade at the time of graduation may be brought to the recommending standard and accepted as such, provided the subject is repeated or reviewed in a regular school session or tested by examination through the College Entrance Examination Board.

*II. On examination.*—The scholarship requirements for first-year undergraduate standing are fulfilled *on examination* by duly recommended candidates whether or not graduates of approved preparatory schools, who pass the examinations of the College Entrance Examination Board (1) in subjects (including English) aggregating 15 units or (2) the comprehensive examinations in four subjects, under the so-called new plan. This latter plan requires also the submission of a high-school record covering 15 entrance units. (For information regarding examinations of the College Entrance Examination Board, see pages 125–128.)

### SUBJECT REQUIREMENTS

The only prescribed subject is English (minimum, 2 units); but applicants will find it to their advantage to anticipate, in the high school, certain Lower Division requirements of the University and to offer the following as part of the 15 units required:

*Four units* in English;

*Three units* in one foreign language (or *two units* in each of two foreign languages);

*One unit* in either Biology, Botany, Physiology, or Zoölogy;

*One unit* in either Physics or Chemistry;

*One unit* in American History (or in American History and Civics).

In anticipation of an engineering course, *one unit* in plane geometry, *two units* in algebra, *one-half unit* in trigonometry, *one unit* in mechanical drawing, and the foreign language and biological science requirements listed above.

The maximum entrance credit which will be accepted in typewriting is *one unit;* in music, *three units* (only one of which may be in vocal or instrumental technique or both). No unit values are attached to penmanship, spelling, and physical education or military training.

### Application and Credentials

Application for admission must be made on the blank furnished by the University, and all credentials must be filed with the Committee on Admission and Advanced Standing at the Registrar's Office on or before the following dates: May 1 for the autumn quarter, December 1 for the winter quarter, and June 1 for the summer quarter.* (No new students are admitted to the Lower Division for the spring quarter.)

The credentials required are: (1) Personal application for admission to the Lower Division, including application fee of five dollars; (2) complete high-school record; (3) statements of personal qualifications; (4) record of any college aptitude or similar test other than that given by Stanford University; (5) official report of any examinations taken through the College Entrance Examination Board.

At the time of selection of candidates for the autumn quarter, made during May, work in progress will be considered in fulfillment of requirements, and admission will be granted subject to the satisfactory completion of all such work prior to the time of matriculation.

### ENTRANCE UNITS

An entrance unit represents a year's study in any subject in a secondary school, constituting approximately one quarter of a full year's work. In assigning credit values two laboratory, drawing, or practice periods, not requiring additional study or preparation, are regarded as the equivalent of one recitation period. The length of the school year is assumed to be from thirty-six to forty weeks.

### APPROVED PREPARATORY SCHOOLS

Approved Preparatory Schools are schools maintaining full four-year courses of high-school work and accredited (1) by the New England College Entrance Certificate Board, by the North Central Association of Colleges and Secondary Schools, by the Association of Colleges and Secondary Schools of the Southern States, by colleges and universities of recognized standing, or (2) upon inspection undertaken or authorized by the University.

The University records of first-year students will be considered as additional evidence of the standing of preparatory schools and of their good faith and success in meeting the requirements of the University, and such evidence will be made use of in determining as to the continuance of accrediting relations.

### ENTRANCE EXAMINATIONS

In June, beginning the third Monday of the month, entrance examinations conducted by the College Entrance Examination Board are held simultaneously in all parts of the United States (in California, at Stanford, Berkeley, Los Angeles, and other places), and in various foreign countries. These examinations may be taken either under the four-subject plan (new plan), or toward the completion of the fifteen units ordinarily required of those entering on examination (old plan), or to supplement deficient credentials from approved schools. (In September, the comprehensive [new plan] examinations only are given at the University.) See page 127.

* After June 1 applications for the summer quarter may still be received, and may be granted if the numerical limitations have not been reached.

A list of places at which examinations will be held will be published about March 1, 1931. Requests that the examinations be held at particular points should be transmitted to the Secretary of the College Entrance Examination Board not later than February 1, 1931.

Detailed definitions of the requirements in all examination subjects are given in a circular of information published annually about December 1. Upon request to the Secretary of the College Entrance Examination Board a single copy of this document will be sent to any teacher without charge. In general, there will be a charge of twenty-five cents, which may be remitted in postage.

All candidates wishing to take these examinations must make application by mail to the Secretary of the College Entrance Examination Board, 431 West 117th Street, New York City. Blank forms for this purpose will be mailed by the Secretary of the College Entrance Examination Board to any teacher or candidate upon request by mail.

The applications and fees of all candidates who wish to take the examinations in June 1931 should reach the Secretary of the Board not later than the dates specified in the following schedule:

For examination centers

| | |
|---|---|
| In the United States east of the Mississippi River or on the Mississippi | May 25, 1931 |
| In the United States west of the Mississippi River or in Canada | May 18, 1931 |
| Outside of the United States and Canada, except in Asia | May 4, 1931 |
| In China or elsewhere in the Orient | April 20, 1931 |

Every application for examination which reaches the Secretary of the Board on or before the scheduled date should be accompanied by an examination fee of $10, which may be remitted by postal order, express order, or draft on New York to the order of the College Entrance Examination Board.

An application which reaches the Secretary later than the scheduled date will be accepted only upon payment of $5 in addition to the regular examination fee.

When a candidate has failed to obtain the required blank form of application the regular examination fee will be accepted if the fee arrives not later than the date specified above and if it be accompanied by a memorandum with the name and address of the candidate, the exact examination center selected, and a list of the subjects in which the candidate is to take the Board examinations.

Candidates who have failed to file applications for examination may be admitted by the supervisor to all examinations except the Scholastic Aptitude Test upon payment of a fee of $5 in addition to the regular examination fee. Such candidates should present themselves at the beginning of the period of registration. They will receive from the supervisor blank forms of application which must be filled out and transmitted to the Secretary of the College Entrance Examination Board.

In order to exhibit their tickets of admission, to learn their examination numbers, and to obtain seats in the examination room, candidates should report for a morning examination at 8:45 and for an afternoon examination at 1:45. An examination will close for candidates admitted late at the same time as for other candidates. The examinations will be held in accordance with the time, Standard Time or Daylight Saving Time, observed in the local schools.

No candidate will be admitted to the Scholastic Aptitude Test late, that is, after 9:00 A.M.

The Scholastic Aptitude Test, which will be held on the morning of Saturday, June 20, 1931, may be taken upon the completion of the school course or at the end of the third year of secondary school work. Each candidate desiring to take this test, even though he is to take no other examination, must file with the Secretary of the College Entrance Examination Board the usual application for examination. Application blanks will be sent to any teacher or candidate upon request by mail to the Board. If the Scholastic Aptitude Test is taken in connection with other examinations no additional fee is required; if taken alone the fee is $10.

A week or more in advance of the Scholastic Aptitude Test each candidate who is to take the test will receive a booklet containing, with explanations and instructions, a specimen test, the blank spaces of which are to be filled in by the candidate. In order to secure admission to the test the candidate must present not only his ticket of admission but also this booklet with the spaces filled in as requested. The supervisor will admit no candidate to the examination room without this booklet.

*Examination for Foreign Students.*—The College Entrance Examination Board has prepared an examination to test competence in the use of the English language on the part of applicants whose native language is other than English. This examination will be given in April 1931, in a number of centers in Latin-America, Europe, and Asia and has been planned with a view to test the candidate's ability (*a*) to read and understand written English, (*b*) to write English intelligibly, (*c*) to understand spoken English, and (*d*) to express himself intelligibly in spoken English. The University strongly advises all foreign students to take this examination before coming to this country. For full particulars concerning the examination, address the Secretary of the College Entrance Examination Board, 431 West 117th Street, New York City.

### The Comprehensive Examinations

Applicants who present evidence of satisfactory preparatory work covering not less than fifteen entrance units may fulfill scholarship requirements by passing the comprehensive (new plan) examination in four subjects, determined as follows:

1. English (three units);
2. A foreign language, selected by the candidate (two, three, or four units);
3. Either Mathematics,* Chemistry, Physics, Biology, or Physiology, selected by the candidate (one, three, or more units);
4. A fourth subject, selected by the candidate, from the subjects in which examinations are held.

These four examinations must be taken at one time. At least two examinations must cover more than two entrance units each. In each subject selected the examination must cover all the units counted by the candidate toward the required fifteen units of preparatory work.

Comprehensive examinations are offered in the following subjects only: Biology (one unit); Botany (one unit); Chemistry (one unit); English (three units); French (two, three, or four units); German (two, three, or

* For the comprehensive examination in Mathematics there may be substituted either one of the regular examinations in Algebra or Plane Geometry.

four units); Greek (two or three units); History (Ancient, European, English, American History including Civil Government—one or two divisions, one unit in each); Italian (two, three, or four units); Latin (two, three, or four units); Mathematics (three or more units); Physics (one unit); Spanish (two, three, or four units); Zoölogy (one unit). If taken as an "old plan" examination, Mathematics may cover any one or more of the following divisions: elementary algebra, plane geometry, solid geometry, trigonometry, advanced algebra.

In September, beginning the third Monday of the month, comprehensive examinations only are held at the University. (The September question papers are prepared by the College Entrance Examination Board, but the answer books are read and graded by the University.) The examination fee in September is $5, and must be paid in advance. Applications, with satisfactory credentials, must be presented to the Registrar, Stanford University, California, not later than the second Monday of the month.

The examination schedule for September 1931 is as follows:

Monday, September 21—English, 9 A.M.; French, 2 P.M.

Tuesday, September 22—Latin, 9 A.M.; History, 2 P.M.

Wednesday, September 23—Elementary Mathematics, 9 A.M.; German, Italian, Spanish, 2 P.M.

Thursday, September 24—Chemistry, Physics, 9 A.M.; Greek, Advanced Mathematics, 2 P.M.

Friday, September 25—Scholastic Aptitude Test, 9 A.M.; Biology, Botany, Zoölogy, 2 P.M.

## ENTRANCE SUBJECTS

The standard of preparation is the four years' high-school course. The proper co-ordination of high-school subjects for the individual pupil is regarded as primarily a problem for the secondary school; the University is prepared to recognize for entrance credit any subject having an established place in the secondary school curriculum, in which adequate instruction is given and which is pursued to satisfactory results.

All Lower Division students (except students coming from other institutions with satisfactory credit in a college composition course) will be required to satisfy the University standard in English Composition. This may be done by passing a special matriculation test to be taken during the first quarter of residence in the University. The examination will test the candidate's practical knowledge of spelling, punctuation, and sentence structure, and his ability to think consecutively on a simple subject. The subjects which are set at the time of the examination will be drawn for the most part from the candidate's own experiences. A student who does not pass will be required to register in English A and remain in the course until his work is of passing grade.

## DEFINITION OF HIGH-SCHOOL SUBJECTS

The definition of high-school subjects given by the College Entrance Examination Board in its annual circular of information will serve as a standard. The following suggestions and explanations indicate the attitude of the University in judging entrance credentials, but no attempt is made to enumerate all the subjects which may be properly included in the high-school curriculum.

**English.**—The primary aim of instruction in English Composition in the secondary schools is clearness. Based upon grammatical correctness, which

is the peculiar goal of elementary English Composition, this is the quality by which the Stanford matriculation test is rated. To attain these aims there should be a definite co-operation of the entire staff of the school.

The work in English Composition should be given at least two recitations a week throughout the entire high-school course. Emphasis should be placed on practice in writing, but it is recommended that some attention be also paid to instruction in the fundamental principles of formal rhetoric.

The work in English Literature should be given an average of at least three recitations a week throughout the four years of the preparatory course. It should be so conducted as to give the student not only an appreciative understanding of the books selected either for general or for more intensive study, but also a knowledge of their place in the history of English Literature, together with an ability to read aloud intelligently both prose and verse.

In the History of English Literature preparation should consist in a brief outline with a view to making clear the character and the tendencies of the more important literary epochs and associating the chief books and authors in their proper periods.

**Mathematics.**—The work in Mathematics is usually distributed as indicated by the following unit values: Algebra (1 to 2), plane geometry (1), solid geometry (½), trigonometry (½). Additional work may be offered in algebra and plane analytical geometry. The solution of numerous original problems and exercises is assumed throughout the course.

**The Sciences.**—In Physics, Chemistry, Physiology, Botany, Zoölogy, Hygiene, and General Science a full year's work in each is expected, comprising, preferably, two recitation periods and three double laboratory periods per week. Accurate notes of the laboratory work should be kept. Any two of the biological sciences (Physiology, Botany, Zoölogy) may be combined into a continuous year's course. Astronomy may be offered as a half-unit course.

In Physiology the textbook work should be accompanied by experiment, dissection of animals and organs, and a certain amount of study of the tissues with the microscope.

In Botany the main thing is that the work shall be of a practical nature: the study mainly specimens and not books. A study of the growth and development of the forms selected is of the highest importance, and should be made a prominent feature in the work. If possible, the pupil should be allowed the use of a compound microscope, but when this is not practicable, microscopic demonstrations by the instructor are indispensable.

In Hygiene the work should include adequate instruction in personal hygiene, the hygiene of occupation, and the relation of the citizen to the state in matters of sanitation and public health. Three periods per week of physical training and three periods in experimental laboratory work in Hygiene, and two recitations per week on Public Health, or an equivalent amount of work distributed over a longer period, will cover the requirements for one unit of credit.

**History and Allied Subjects.**—History should be offered in full unit courses covering respectively the following divisions: (*a*) Ancient, (*b*) European (either Medieval and Modern or Modern European), (*c*) English, (*d*) American. Civics may be offered as a part of American History, or as an additional half-unit course. Biblical History and Literature and Economics may each be offered as a half-unit or a unit course.

In the History subjects, in addition to the textbook preparation, the fol-

lowing exercises are recommended: Supplementary reading, including the use of original material where possible, notes and digests of reading; abstracts or analyses of specified chapters, both of the textbook and supplementary reading; outlines of subjects, gathering material from all available sources; map-drawing from printed data or comparison of existing maps, showing movements of exploration, migration or conquest, territorial changes, or social phenomena. Such work should be regarded as a means rather than the end of historical study and in every instance should be adapted in character and amount to the stage of advancement of the class and of the individual pupil. As the pupil progresses in his study, more advanced work may well be required in the form of historical composition and of note-taking in the class from talks by the teacher or reports of fellow-pupils.

**Spanish and French.**—The elementary study of the languages, covering two years of daily recitations, should lay stress on the following points: (1) An accurate knowledge of the forms of the languages; (2) the elements of syntax; (3) the ability to turn easy English prose into French or Spanish; (4) the ability to translate ordinary French or Spanish into idiomatic English; (5) the ability to pronounce French or Spanish correctly.

(Students who have had one year of French in the high school and present one unit of credit for entrance into the University may take Course A2. Those who have had one year of Spanish in the high school and present one unit of credit for entrance may take Course B2. Those who have had two years of French or Spanish in the high school, and present two units of credit for entrance, may take second-year work in the University.)

The intermediate requirements are intended to represent a third year of daily recitations. The specific demands are: (1) A thorough knowledge of modern French or Spanish syntax; (2) the ability to turn ordinary modern French or Spanish at sight into idiomatic English; (3) the ability to translate connected English prose of moderate difficulty into French or Spanish; (4) the ability to write French or Spanish from dictation; (5) some facility in speaking the languages.

(Students who have had three years of French in the high school, and present three units of credit for entrance into the University, will ordinarily take Course A22. Courses A26 and A30 are also open to them. Students who have had three years of Spanish in the high school, and present three units of credit for entrance into the University, will ordinarily take Course B22. Courses B26 and B30 are also open to them.)

The advanced requirements will occupy a fourth year of daily recitations.

At the end of this course the student should be able: (1) To read at sight any standard author not earlier than the seventeenth century; (2) to write in French or Spanish a short essay on some simple subject connected with the works read; (3) to translate correctly a passage of modern English prose; (4) to carry on a simple conversation in French or Spanish; (5) to follow a lecture in French or Spanish.

The reading in the elementary course should cover from four hundred to six hundred duodecimo pages; in the intermediate course a similar amount should be read of prose and verse, a portion to be in the dramatic form; and in the advanced course the same quantity of prose and verse should be selected from standard authors not earlier than the seventeenth century, and these should be read with reference to their literary value.

The practice of writing compositions consisting in reproductions or paraphrases of the matter read should be begun in the intermediate course and followed by short themes along similar lines in the advanced course.

**German.**—Elementary German represents the work of two high-school years with daily recitations. It should give the following preparation: The ability to read understandingly at sight easy German prose and verse; an accurate knowledge of the most important elements of grammar, embracing especially inflections, word-order, and the essentials of syntax, as also the ability to appreciate the force of prefixes and suffixes; the ability to express in correct German simple ideas concerning familiar things and to recognize German words and simple sentences when spoken. Careful attention should be given to pronunciation and accentuation.

The amount of work to be accomplished in the first year is approximately what is contained in a beginner's book such as Zinnecker's *Deutsch für Anfänger,* with some additional reading. The reading of the second year should be for the most part graded modern German from 200 to 300 pages. German should be the language of the classroom, instruction in conversation, composition, and grammar being based largely on the reading text.

Intermediate German represents a third year of daily recitations, designed to extend and strengthen the pupil's personal command of the language, and his knowledge of word formation and syntax. Here again the reading matter should be, in large measure, the center of the instruction, and some attention should be paid to literary appreciation.

Advanced German represents a fourth year of daily recitations. Besides rounding out the pupil's knowledge of grammar, and increasing his facility in speaking and writing, this course should make considerable addition to his passive vocabulary and develop his literary appreciation. It would be advisable to choose most of the reading from the works of recent or contemporary writers, but some work or works of Lessing, Goethe, and Schiller should be studied intensively, while others might be assigned for outside reading and report.

**Latin.**—The reading required in elementary and advanced Latin (4 units), without regard to the prescription of particular authors and works, is not less *in amount* than Caesar, *Gallic War,* I–IV; Cicero, the orations against Catiline, for the Manilian Law, and for Archias; Virgil, *Aeneid,* I–IV. An equivalent amount of reading from authors other than those specified above may be substituted. The following are suggested: Caesar, *Civil War;* Eutropius; Nepos; Terence; Phormio; Cicero, *Letters;* Sallust; Virgil, *Bucolics* and *Georgics;* Ovid, *Metamorphoses.*

Exercises in translation at sight should begin in school with the first lessons in which Latin sentences of any length occur, and should continue throughout the course with sufficient frequency to insure correct methods of work on the part of the student. From the outset particular attention should be given to developing the ability to take in the meaning of each word—and so, gradually, of the whole sentence—as it stands; the sentence should be read and understood in the order of the original, with full appreciation of the force of each word as it comes, so far as this can be known or inferred from that which has preceded and from the form and position of the word itself. The habit of reading in this way should be encouraged and cultivated as the best preparation for all the translating that the student has to do. No translation, however, should be a mechanical metaphrase. Nor should it be a mere loose paraphrase. The full meaning of the passage to be translated, gathered in the way described above, should finally be expressed in clear and natural English.

The school work in Latin should include much reading aloud, writing from

dictation, and translation from the teachers' reading. Learning suitable passages by heart is also very useful, and should be practiced.

The work in composition should give the student a better understanding of the Latin he is reading at the time, if it is prose, and greater facility in reading. It is desirable, however, that there should be systematic and regular work in composition during the time in which poetry is read as well; for this work the prose authors already studied should be used as models.

**Greek.**—In Elementary Greek (2 units) the following requirements should be covered: Grammar, the inflections, and the essential points of syntax; Xenophon's *Anabasis,* Books I–IV, or an equivalent; prose composition. It is expected of every pupil that he be able to read Greek aloud without stumbling.

In Advanced Greek (1 unit): Homer, *Iliad,* Books I–III, or an equivalent; advanced prose composition. The pupil should have a good acquaintance with the forms and syntax of Homer, and be able to scan any given passage exactly and to read it rhythmically. In the writing of Greek the pupil should have a year's training beyond that required in Elementary Greek.

**Drawing and Applied Art.**—In each of the drawing subjects (Freehand, Mechanical, and Architectural) a unit of credit represents daily double periods for a year or single periods for two years.

In Freehand Drawing approximately two-thirds of the time should be given to representation and one-third to decorative and constructive design. *Representation* should include: Object drawing, boxes, books, bowls, vegetables, machine parts, drawn in various positions with attention to perspective facts in line and also to light and shade; plant forms, seed pods, shells, insects, animals, and simple landscape, drawn in line, in light and shade, and in color; composition, exercises in arrangement and adaptation of pictorial subjects into good composition, using both rhythmic line arrangement and harmonious color. The style of drawing should be direct, facile, and effective, adapted to the thing drawn, with refinement in its proper place and vigor in its proper place. The pupil should be equally familiar with the use of pencil and charcoal or brush. *Design* should include (1) exercises in space filling, borders and all-over patterns with use of geometric and organic forms; (2) principles of constructive and decorative design applied to simple objects, such as, in printing, a title-page or program; in textiles, a stencil or embroidery design for a curtain or table-scarf; in wood, working drawings for a chair, table, clock-case, book-rack, etc.; in metal, cabinet hardware and lighting fixtures, etc. Talks supplemented by photographs of the best paintings and architecture, and talks upon taste in home furnishing and appointments, with visits to worthy examples, should supplement the course with a view to developing an enlightened taste in art.

In Mechanical Drawing the pupil is expected to acquire neatness and accuracy in the use of drawing instruments. This course should include practice in line work, lettering, machine or architectural working drawings, and tracing. Recognition, commensurate with the length of course and the degree of proficiency attained in the use of instruments, will be given, however, to courses consisting of line work, lettering, and the construction of geometric figures.

**Shopwork.**—Two things are expected: First, a knowledge of the materials and tools used, and a thorough understanding of the principles involved in the operation performed; second, manual dexterity, as evidenced by neatness, accuracy, and dispatch in the execution of a given piece of work.

Woodworking (½ unit) demands the ability to recognize the common

varieties of wood, and some knowledge of their physical properties, such as ease of working, strength, toughness, hardness, etc., is expected. The pupil should be familiar with the uses of the principal hand tools of carpentry, and, with care, be able to make the ordinary kinds of joints and splices, and be familiar with the operation of lathe, jig-, band-, and circular-saws, and planing machines.

Forge Work (½ unit) demands an elementary knowledge of the properties of wrought iron and steel, and of the proper heats at which to work them. The management of the forge and the fire and the nature and uses of all the ordinary blacksmithing tools should be known. The pupil should be able to execute all of the common forging processes, including the various forms of welds in iron and steel; he is also expected to understand hardening, tempering, and annealing.

Foundry Work (½ unit) demands a knowledge (1) of the tools and processes used in the ordinary forms of green sand molding and core work; (2) of the properties of cast iron, and experience in pouring cast iron as well as in molding. The pupil should have had practice in charging and operating the cupola.

Machine Shop Work (½ to 1 unit) demands a knowledge of the tools and processes used in the working of iron, steel, and brass. The pupil should be able to execute all forms of vise work, such as chipping, filing, scraping, fitting, and finishing. He should be familiar, through experience in operation, with the simpler forms of machine tools, such as the lathe, drilling machine, planer, shaper, and milling machine.

**Agriculture, Horticulture, Domestic Science, Commercial Subjects, Music.**—The outline prepared by the University of California is suggested.

# FEES, EXPENSES, AND AID FUNDS

## APPLICATION, TUITION, AND COMMUNITY FEES

The Application Fee for all candidates for admission to the University, and for all registered students applying for admission to the Graduate Division, is $5, payable at the time of application. (This fee, once paid, is not returnable, but may be transferred to a later date by students who fail to matriculate.)

The Tuition Fee, per quarter, for all students, graduate and undergraduate, is stated in the following schedule:

| Group | Graduate School of Business | School of Medicine | All Other Schools and Departments |
|---|---|---|---|
| I. Students registered in the University prior to Autumn Quarter, 1930*.... | $115.00 | $100.00 | $85.00 |
| II. All other students..... | 130.00 | 115.00 | 100.00 |

* Beginning Autumn Quarter, 1933, all students in Group I will pay the increased fees listed under Group II.

The Community Fee for all students, graduate and undergraduate (except as noted below), is $13 per quarter. This fee covers the privileges of the gymnasia, athletic grounds, hospitals, the Stanford Union or Women's Clubhouse, and membership in the Associated Students. The Community Fee is not collected from students registered at the Hopkins Marine Station. Students registered in the School of Medicine at San Francisco are charged a Hospital Fee of $5 instead of the Community Fee.

A Pavilion Fee of $1 per quarter is collected from all undergraduates for the Associated Students.

A Law Library Fee of $5 is charged all students majoring in the School of Law.

In addition to the fees listed above, students in laboratory courses pay for the materials which they use, and in some courses syllabus and other fees may be charged. In medical courses a deposit ranging from $10 to $20 per annum is required to cover breakage or loss of apparatus and materials, such deposits being returnable, less charge for breakage, loss, or wear and tear of apparatus.

In the School of Medicine, students who have paid the regular fees in full, and wish to take additional work before graduation, will pay for this work such fees as are decided upon in conference with the Dean and Executive Head of the Department in which such courses are taken.

The General Fee at Hopkins Marine Station is $85 per quarter for students in Group I and $100 per quarter for those in Group II, as classified above.

A Diploma Fee of $5 is charged all persons receiving degrees from the University, except those who have enrolled for the first time in the graduate or undergraduate divisions of the University since January 1, 1927.

The University reserves the right to change at any time, without previous notice, the tuition and other fees.

### Refund of Fees

Students who withdraw from the University before the end of a quarter may receive refunds of portions of their fees, provided written requests are filed

within two months of the time of withdrawal from the University. Refunds will be made according to the circumstances of the withdrawal, as follows:

1. *Annulled Registration.*—Students who withdraw from the University voluntarily within two days after the day of registration may have their registration annulled. The refund will be the tuition and community fees in full. Such students will not be included in the office records, and will not secure any privileges for admission for any subsequent quarter as returning students.

2. *Leave of Absence.*—Leave of absence may be requested from the Registration Committee by any student in good standing at any time, but will be granted within four weeks of the end of the quarter only with the approval of the Scholarship Committee. When leave of absence is granted, effective within two weeks after the day of registration, the refund will be the fees paid less the following charges: Tuition, $10, Community, $9, Pavilion, $1; between two and four weeks after the day of registration, the refund will be the fees paid less the following charges: Tuition, $25, Community, $9, Pavilion, $1; thereafter there will be no refund allowed. Such students will be included in the office records, and may enroll in the University for any subsequent quarter with the privileges of a returning student.

3. *Cancelled Registration.*—Students who have their registration cancelled, or are suspended from the University, for cause, will receive refunds on the same basis as those receiving a leave of absence, unless otherwise specified in the disciplinary action taken. A student whose registration is cancelled within one week after the day of registration, for an offense committed during a preceding quarter, will receive a full refund of tuition and community fees.

4. *Provisional Registration.*—Students who have received permission to attend the University provisionally, pending the adjustment of their standing, and who are denied registration within two weeks after payment of fees, will receive a full refund of tuition and community fees. Such students will not be included in the office records. After two weeks they will receive refunds on the same scale as for a leave of absence.

Syllabus and laboratory fees (collected after the fourth week of the quarter) are not subject to refund. Chemistry laboratory fees, collected at the beginning of the quarter, are refunded on the order of that department on the basis of service and supplies which have been used. Fines may be refunded on the order of the authority under which they were imposed.

## LIVING ACCOMMODATIONS AND EXPENSES

There are five dormitories for men (Branner, Encina, Toyon, and Sequoia Halls, and the Stanford Union) and one for women (Roble Hall), all under University management. In addition, there are fraternity and sorority houses, a privately conducted boarding house, and a number of rooms in private houses on the campus and in Palo Alto, where students may be accommodated with the approval of the University (consult the Dean of Men or the Dean of Women). The University reserves the right to increase, at any time, room rentals or cost of board in any of its dormitories or dining halls. The rates stated, therefore, are subject to change.

*Men.*—Undergraduate men, not living with parents or guardians, are expected to room in the dormitories. New Lower Division men entering the University in the autumn are required to live at Encina Hall for the first three quarters and those entering in the winter, for the first two quarters. Rooms in the Union are available preferably for graduates and seniors. Ap-

plication for rooms should be made to the Dean of Men several weeks in advance of the opening of the quarter, and should be accompanied by a remittance of $5, payable to Stanford University, which will be applied on the rental cost. Assignments will be made as vacancies occur. If no rooms are available applicants' names will be placed on the waiting lists and subsequent assignments will be made from these lists. The University reserves the right to approve the places of residence of men not living in the dormitories. The cost of rooms in the dormitories is from $18.50 to $36 per quarter (average cost $24 per quarter). Room rent is payable at the beginning of each quarter. Students living in the dormitories are expected to supply their own linen and bedding for standard size single beds. A small breakage fee is charged in all dormitories except Encina, where a breakage deposit of $10 is required. In addition each student deposits $1 for key to his room and pays small quarterly dues for membership in the dormitory club.

Board may be obtained at the Stanford Union, Sequoia Hall, Encina Dining Hall, and in various clubs, the cost ranging from $30 to $40 per month. New Lower Division men who live at Encina Hall are also required to board there throughout their period of residence. The cost of board in the Encina Dining Hall, operated on a co-operative plan, is approximately $85 per quarter for a six-day service per week, and is payable in full at the beginning of the quarter or optionally in two installments, the amount of each installment and the time of payment to be fixed each quarter.

The Stanford Y.M.C.A. keeps on file a list of rooms on the campus and in Palo Alto, at an average distance of a mile and a quarter from the University, which are available to men students.

*Women.*—Undergraduate women not living with parents or guardians are required to reside in Roble Hall for three quarters. (Some modification of this requirement for the succeeding autumn quarter may be made for students entering in the winter and spring quarters.) Women students not residing in Roble Hall may live only in places approved by the University (consult the Dean of Women).

Roble Hall, the women's dormitory, is arranged either in singles or in suites of three rooms. The application for room assignments in Roble Hall should be made to the Director and must be accompanied by a remittance of $5, payable to Stanford University, to cover a deposit fee to be applied on room rent when registration has been completed. As rooms are assigned in order of application it is recommended that early application be made.

Beginning with the autumn quarter of 1931 the rent for a room in Roble Hall, including a service fee, will be $47.25 per quarter, payable in advance. Prior to that date room rent is $32.25 per quarter, payable in advance for the quarter (for the summer quarter either in full or in two installments: $21 and $11.25, respectively). Deposit fees of $1 for key to the room and $1.50 for a pillow are required; both deposits may be refunded at the end of the quarter if the articles are returned in good condition. Students rooming in the Hall furnish couch covers, bed linen, blankets, towels, bureau scarfs, rugs, and curtains. White curtains, sold at cost, are uniform for the Hall and must be purchased of the Director, except in the summer quarter when curtains are rented for $1. Also, for summer quarter students, a few rugs are available, and bed linen and blankets may be rented from the Director at the rate of $3 for the quarter, or any period thereof, but as the supply is limited no guaranties can be given that bedding will be available. It is advisable, therefore, to apply for bedding when making application for a room.

Board is approximately $85 per quarter, except for the summer quarter when it is $90 for the full quarter, or $75 for the eight weeks' term in Education. The full amount is payable in advance for the quarter, or in two installments of $45 and $40, respectively (for the full summer quarter, $56 and $34; for the eight weeks' term, $56 and $19).

All residents in the Hall are members of Roble Club. In order to cover the cost of the informal entertaining of the club and of maintaining the additional telephone service desired by the club, the dues are $3 per quarter.

*Commuters.*—Special commutation tickets are issued by the Southern Pacific Company, and students living in towns on the line of the railway, from San Francisco to San Jose, easily go to and from the University daily. There are also trolley and bus connections with San Jose, Los Gatos, and intermediate towns.

*Medical Students.*—The cost of living for students of Medicine in San Francisco is about the same as at Stanford University. There are numerous rooming and boarding houses near the medical buildings.

*Guests.*—A guest suite is maintained at the Stanford Union and may be engaged by making reservations in advance. The guest suite, available for men, or man and wife, is composed of a sitting-room, bedroom, and private bath. Rates per night, $3 for one person, $3.50 for two; by the week, $21. Limit of two weeks. Reservations may be made with the Custodian. Additional guest rooms will be added to the Union accommodations as far as the campus housing problem permits and patronage is assured.

### Fixed Expenses Per Quarter

The following is an estimate of the expenses *per quarter,* for undergraduate men, *for the items named:*

| | Medium | High |
|---|---|---|
| Tuition and Community Fees | $113.00 | $113.00 |
| Books, Syllabus Fees, etc. | 15.00 | 30.00 |
| Board | 85.00 | 120.00 |
| Room | 18.00 | 45.00 |
| Incidentals (other than clothing and railway fares) | 35.00 | 50.00 |
| Laundry and clothing | 35.00 | 100.00 |
| Total for the quarter | $301.00 | $458.00 |

Laboratory fees are additional. The cost of board is variable and the estimate given for men is conservative, while a lower cost is possible in co-operative clubs. Undergraduates pay also the Pavilion assessment of $1 per quarter.

### TUITION NOTES

After the first quarter of registration in the University undergraduate students may defer payment of tuition fees by means of tuition notes. These notes, which cover tuition only and do not include community fees, are issued by the Dean of Men and the Dean of Women upon approval of the President. All undergraduates who are candidates for the degree of Bachelor of Arts may apply for tuition notes, with the following exceptions: Students registering at the Hopkins Marine Station, for Field Geology, or in the School of Medicine. Additional exceptions may be made in the case of students registering for newly established courses.

Ordinarily, tuition notes are granted only to students who are contributing to their own support. Undergraduate students returning to the University after an absence of three or more quarters may not apply for tuition notes, nor renew former applications until after one quarter of residence.

## LOAN FUNDS

In general, cash loan funds are available only to applicants having a scholarship average of C or better, unless otherwise specified.

### Loan Funds for Men and Women

Unless otherwise stated, application should be made to the Dean of Men:

*Alumni Jordan Loan Fund.*—Founded largely by physicians who were at one time students of Stanford University. Its purpose is to pay the tuition fees of several medical students of high standing, with the stipulation that at some future time the amount will be returned. The student who once receives this scholarship loan will be entitled to its use throughout his medical course, provided his work continues to be satisfactory. Application should be made to the Dean of the Stanford School of Medicine, San Francisco.

*Stanford Alumni Association Graduate Loan Fund.*—Loans are restricted to candidates for advanced degrees, preference being given to candidates for the Ph.D. degree. In making loans emphasis shall be placed upon character, scholarship, and intellectual promise in addition to personal need.

*Stanford Alumni Association Undergraduate Loan Fund.*—"For worthy undergraduates."

*Associated Students Undergraduate Loan Fund.*—For the benefit of worthy undergraduates who are members of the Associated Students of Stanford University.

*William Burton Barber Loan Fund.*—Established in 1914 by Mrs. Anna M. Barber, in memory of her son, William Burton Barber, '02, "to provide for needy and worthy students." This fund, increased by over $5,000 from the estate of Mrs. Jeannette Taylor, is available for men and women of the senior class who have been registered in the University for at least one quarter.

*Class of 1906 Loan Fund.*—No restrictions except such as may be imposed by the Committee on Scholarship.

*Horace Davis Loan Fund.*—Mr. Horace Davis, charter member of the Board of Trustees, provided in his will a fund of $10,000, the interest of which is to be used as a loan fund for students.

*George E. Farrand Loan Fund.*—Established in 1928 by Mr. George E. Farrand for use by students upon such terms and conditions as may be determined by the Dean of Men, with interest at 6 per cent per annum until paid.

*Richard Friedlander Memorial Fund.*—Established in 1928 by the parents and friends of Richard Friedlander of the Class of 1926, for the purpose of aiding worthy students to complete their education. Interest at the rate of 6 per cent per annum until paid.

*Dr. Robert Patek Memorial Loan Fund.*—Established in 1921 by Mrs. Sadie Dernham Patek (Stanford, '11) in memory of her husband, Dr. Robert Patek. This fund, principal and interest, is to be loaned to medical students to assist them in completing their medical course. A student who has once received a loan from the Fund is entitled to receive additional loans until his

graduation. The loans granted to students are to bear no interest for six years, then to carry an interest rate of 6 per cent until paid. Applications for loans are to be made through the President's Office.

*John M. Switzer Student Loan Fund.*—Mr. John M. Switzer (ex-'98) has presented to the Student Guild the sum of $500, which is to be used from time to time as an emergency loan fund to help tide over critical periods in the career of needy and deserving students who are trying to complete a course at Stanford.

### Loan Funds for Women

Application should be made to the Dean of Women:

*Chi Omega Loan Fund.*—Established in 1927 by the local alumnae of the Chi Omega sorority for the use primarily of senior women.

*Delta Gamma Memorial Fund.*—Established in 1926 as an emergency loan fund for women students.

*East Bay Stanford Women's Club Loan Fund.*—Established in 1925 by the East Bay Stanford Women's Club.

*Harker Alumnae Association Loan Fund.*—Established in 1917 by the Alumnae Association of Miss Harker's School, a large number of whose graduates have been Stanford students. There are no restrictions except that if a graduate of Miss Harker's School applies she shall be given preference, other qualifications being equal.

*Alice Windsor Kimball Loan Fund.*—Established in 1928 by a group of friends of Miss Alice Windsor Kimball. The fund is to be used primarily for graduate and senior women, but is available to any Stanford woman student recommended by the Dean of Women.

*Women's Student Loan Fund.*—The Women's Student Loan Fund was organized by the Women's Conference through private subscription, and is increased yearly by small sums earned by a committee of the Conference. It is available for small emergency loans.

### Loan Funds for Men

Application should be made to the Dean of Men:

*Dean of Men's Loan Fund.*—An emergency loan fund administered by the Dean of Men upon approval of the President. Interest at the rate of 6 per cent per annum until paid.

*Romaine Josephine Stanley Fund.*—Established in 1928 by Dr. L. L. Stanley for the purpose of rendering financial assistance to deserving medical students.

## SCHOLARSHIPS

### Administered by Stanford University

Funds given to the University for a beneficiary designated by the donor may be administered as a scholarship, provided the candidate has a C average at this University both on his total record and on the work of the quarter preceding the tenure of the scholarship; or, if not already matriculated, has been selected for admission. The tenure of such scholarships is subject to the rules governing other scholarships, except that new first year students may be given two quarters to attain a C average.

Applications for the following scholarships, unless otherwise specified, should be addressed to the Secretary of the Committee on Scholarship, and should be filed by April 1; applications for the E. C. Converse, William S. Cranston Memorial, and E. W. Hopkins Scholarships, which are awarded to entering undergraduate students, should be filed by June 15.

*Anglo-California Trust Company Scholarship.*—In 1927 the Anglo-California Trust Company established a scholarship for the purpose of training college men for the banking field, with the idea that upon graduation an opening in the Anglo-California Trust Company will be available for graduates who hold this scholarship.

Preference is given to graduates of the high schools of San Francisco or the Bay region. The scholarship consists of the sum of $350 a year, to be given annually by the bank and to be supplemented by a position in the bank during the summer vacation period. The student is chosen by the Committee on Scholarship, subject to the approval of the Anglo-California Trust Company, and he is to state his desire to follow a course at the University to fit him for a banking career and also his desire to follow this career with the Company upon his graduation. The tenure of the scholarship may be terminated at any time either by the Company or by the student in case the circumstances warrant.

*Bertha Hyde Braly Scholarship.*—In 1916 Mrs. J. M. Braly, of Fresno, established an annual scholarship of $250 in memory of her daughter, Bertha Hyde Braly, '97. The amount of the scholarship was increased to $300 by Miss Elizabeth M. Braly in 1921. The scholarship is available for a woman student who is a resident either of Fresno County or Santa Clara County.

*Cap and Gown Scholarship.*—The Cap and Gown Society established a scholarship in 1924 to be awarded annually to a woman student. The amount available is $300.

*L. W. Clark Scholarship.*—In 1930 the University received from the estate of L. W. Clark the sum of $5,000, the income to be used for the tuition of worthy students. The annual amount available is $250.

*E. C. Converse Scholarships.*—In 1921 the University received a bequest of $50,000 from the estate of Edmund C. Converse for the establishment of the E. C. Converse Scholarship Fund. The income of this fund is to be used under the direction and at the discretion of the President or other ranking executive of the University, in the establishment and maintenance of scholarships not exceeding $500 per annum, to be paid to needy and deserving students. Ten undergraduate scholarships of the annual value of $250 each have been created, five of which are reserved for entering students.

*Mabel Hyde Cory Scholarship.*—In 1921 Miss Emma L. Martin, '97, and her sister established a scholarship of the annual value of $500 in memory of Mabel Hyde Cory, '96, who died February 15, 1921. This scholarship is to be awarded preferably to a needy young woman in the Department of History.

*William S. Cranston Memorial Scholarship.*—In 1924 Mr. and Mrs. William M. Cranston established a scholarship of the value of $500 annually, in memory of their son, William S. Cranston. This scholarship is to be awarded to an entering student.

*George E. Crothers Law School Scholarship.*—In 1917 Judge George E. Crothers, of the class of 1895, established a Law School Scholarship of $250 to be awarded annually. Application should be made to the Dean of the School of Law.

*Dickey Scholarships.*—In 1914 the Trustees of the University received from the estate of the late W. J. Dickey, of Fresno, the sum of $10,000 for the establishment of the W. J. Dickey Scholarship Fund "to aid young men from Fresno County, preferably from Fresno city, to make their way through Stanford University." No one may be appointed to a Dickey Scholarship unless he shall have been a resident of Fresno County, preferably Fresno city, for at least two years prior to his appointment; and no scholarship may be held or shared by one person for more than four years. The fund provides for two scholarships of the annual value of approximately $237.50 each.

*Henry G. Dodds Scholarships.*—In 1921 Mr. Henry G. Dodds established a scholarship fund of $3,000, which in 1925 was increased to $5,000. In 1931, the University received $5,000 additional as a legacy from the estate of Mr. Dodds. The income from this fund (approximately $500) is to be awarded annual to deserving young men preferably from the Pacific Coast.

*Orrin W. Dunn Scholarship.*—In 1923 Mrs. Harriet L. H. Dunn established a scholarship to aid in meeting the expenses of young men (who must be unmarried) attending Stanford University and registered in any of the various departments of engineering, chemistry, geology, or medicine, with sufficient credit to entitle them to junior standing. The donor has provided that the holder of the scholarship shall be selected by the President of the University. The annual value of the scholarship is $300.

*Mrs. Cordelia Elkus Scholarship.*—In 1928 Mr. Charles deY. Elkus established a scholarship of the annual value of $250 in memory of his mother, Mrs. Cordelia Elkus. This scholarship is to be awarded to a worthy and needy student, graduate or undergraduate, preferably one who is following or intending to follow the study of law.

*Walter Mason Field Scholarship.*—In 1927 Mrs. Nancy K. Field established a scholarship of the annual value of $300 in memory of her husband, Walter Mason Field.

*Hiram C. Fisk Scholarship.*—In 1920 Mr. W. D. Fisk established a scholarship in memory of his son, Hiram C. Fisk, who is on the Stanford Honor Roll. The amount now available is $250 per annum.

*Florence Hecht Fries Scholarship in Medicine.*—In 1925 Mrs. Dorothy Fries Lilienthal established a scholarship fund of $5,000 in memory of her mother, Mrs. Florence Hecht Fries. The income of this fund ($300) is to be awarded annually to a worthy and needy student preparing for the profession of medicine.

*Gertrude Gardiner Scholarship.*—In 1920 Miss Gertrude Gardiner established a scholarship of the annual value of $200, to be known as the Gertrude Gardiner Scholarship, and to be awarded to a non-sorority woman who has been a student in the University for at least two quarters and who is a resident of Roble Hall.

*William F. Herrin Scholarship Fund.*—In 1925 the University received from Mr. William F. Herrin, of San Francisco, a gift of $4,500, the income to aid deserving students who need or require such aid in order to obtain or complete their education. The annual value of the scholarship is $315.

*Brodie G. Higley Scholarship.*—In 1915 Mr. Brodie G. Higley, of the class of 1899, established, through the Alumni Association, an annual scholarship of $150, "open to either a man or woman undergraduate student who is in good and regular standing in the University, and to whom the money will be a

real assistance." In 1919 Mr. Higley deposited with the Board of Trustees securities to the amount of $3,000 to perpetuate this scholarship.

Applicants for the scholarship must have been registered in the University for at least three quarters prior to the time of application. In making appointments it will be the purpose of the University to emphasize character, scholarship, and intellectual promise, as well as personal need.

*E. W. Hopkins Scholarships.*—In 1923 the University received from Mr. E. W. Hopkins a gift of $25,000, the income to be used for paying the tuition of needy students. Five scholarships for entering students, of the annual value of $250 each, have been established; two of these are reserved for students entering with Upper Division standing.

*Charles Andrews Huston Memorial Scholarship.*—In 1923 Mrs. Margaret Huston established a scholarship as a memorial to her husband, Charles Andrews Huston, for many years Professor of Law and Dean of the Stanford School of Law. The holder is to be a student in the School of Law, nominated by the faculty and approved by the Committee on Scholarship. The annual amount available is $200. Application should be made to the Dean of the School of Law.

*Ira S. Lillick Scholarship.*—In 1920 Mr. Ira S. Lillick, of the Class of 1897, established a scholarship of the value of $500 to be awarded annually to a worthy student, preferably in Law. Application should be made to the Dean of the School of Law.

*Ernest A. Love Scholarship.*—In 1920 Mr. and Mrs. Allan Love founded a scholarship of the annual value of $150 in honor of their son, Ernest A. Love, '18, who died in service in France. This scholarship is open to worthy and needy undergraduate men, preference being given to students from Arizona.

*Mrs. McDowell Roble Club Scholarship.*—The sum of $150 per year has been presented to the University by Mrs. John E. McDowell for the purpose of establishing a scholarship to be granted to a Roble Club member who has been a student in the University and a resident of Roble Hall for two years, the award being made at the close of the junior year.

*John E. Marble Scholarship.*—In 1930 Mr. John E. Marble donated to the University the sum of $1,000 to establish a scholarship of $333.33 each year for three years. This scholarship is to be awarded annually to a graduate student in history.

*Memorial Scholarship.*—The trust establishing the Leland Stanford Junior Memorial Scholarship provides a fund of $6,000, the income of which shall be used "to pay the living expenses, cost of books, fees, and other necessary expenses of the holder." Under the present arrangement the Memorial scholar receives in cash $100 per quarter, or a total of $300 for the academic year. In addition the trust sets aside a room in Encina Hall for the use of the holder of the scholarship and for which no charge is made. Other things being equal, a student who has held the scholarship satisfactorily for one year shall have preference for the next.

*Dorothy Metz Scholarship.*—In 1920 Mrs. Lillian C. Metz established an annual scholarship of the value of $200 in memory of her daughter, Dorothy Amanda Metz, '17, who died in service, the scholarship to be awarded "to a worthy and ambitious student of limited means." In 1925 an endowment of $5,000 was left by Mrs. Metz in her will which increased the value of the scholarship to $238.75.

*Monterey County Stanford Alumni Association Scholarship.*—In 1930 the Monterey County Stanford Alumni Association presented to the University the sum of $275 to establish a scholarship for a worthy and needy student, preferably a first-year student, from Monterey County.

*Robert S. and Florence Moore Scholarship.*—In 1925 the University received from Mr. and Mrs. Robert S. Moore a fund of $3,000, the income to be applied to the support of some worthy student. The annual value of the scholarship is $140.

*Nathaniel R. Morgan Scholarship in Electrical Engineering.*—In 1931 Mr. and Mrs. Frederick E. Morgan established a scholarship of the annual value of $300 in memory of their son, Nathaniel R. Morgan. This scholarship is to be awarded to a student in Electrical Engineering who has a strong but kindly and pleasing personality, and who has a marked and vital interest in the human values.

*Maud Huntsberger Peck Scholarship.*—In 1926 Mrs. Maud Huntsberger Gerity, '08, established a scholarship of the annual value of $300.

*Francis Price Scholarship.*—In 1930 Mr. Francis Price, of the Class of 1914 (J.D., 1915), established a scholarship of the value of $500, to be awarded annually to a student in the School of Law. Application should be made to the Dean of the School of Law.

*Regional Scholarships.*—These scholarships may be awarded to persons who meet the minimum requirements for admission to the University (fifteen acceptable high-school units), and who need this help in order to enter the University. Nominations and funds for regional scholarships will be received from the organized alumni of the region.

*Dr. Emmet Rixford Scholarship Fund.*—In 1921 Dr. Emmet Rixford, Professor of Surgery in the Stanford School of Medicine, made a gift of $500, to be awarded annually to some graduate of Stanford School of Medicine or to some staff member of rank under that of assistant professor, to be chosen by the medical faculty, for work on some surgical problem, anatomical, physiological, pathological, or clinical, the problem to be approved by the faculty. In 1928 the unexpended balance of the fund, amounting to $1,000, was placed in a permanent fund to draw interest until such time as additional gifts will make the income sufficient to support an annual scholarship or fellowship.

*San Francisco Lodge, No. 3, B.P.O.E. Scholarships.*—Established in 1924, for a San Francisco boy, provided "that he be worthy, that he be in need, and that he be of good strong character." In 1925 a second scholarship was established. The student is permitted to attend the university of his choice. For the year 1930–31 one scholarship of $500 was awarded to a Stanford student.

*San Francisco Polytechnic High School Scholarship.*—In 1928 the Polytechnic High School of San Francisco established a fund of $3,000, the income to be devoted to an annual scholarship, preferably for a graduate of the Polytechnic High School. The amount available annually is $180.

*Margaret Sidney Scholarship.*—In 1924 Miss Margaret Lothrop established a scholarship in memory of her mother, Mrs. Daniel Lothrop. The preference is to be given a woman student who is interested in writing as a life work. The amount available is $300 annually.

*Leon Sloss Fund.*—In 1922 Mrs. Bertha G. Sloss established a fund of $5,000 in memory of Mr. Leon Sloss, one of the original trustees of the

University, the income to be awarded annually to a needy student. At present this fund is being administered by the Scholarship Committee. The annual amount available is approximately $300.

*Stanford (Anonymous) Scholarship.*—In 1929 a scholarship of the annual amount of $300 was established by an anonymous donor.

*Stanford Mothers' Club Scholarships.*—In 1928 the Stanford Mothers' Club established two scholarships of varying amounts from year to year.

*Stanford Resident Alumnae Scholarship.*—In 1925 the Stanford Resident Alumnae voted to offer annually a scholarship of the value of $300, preferably for a woman student.

*Stanford Student Chapter of the American Society of Civil Engineers Scholarship.*—Established in 1925. The amount of $300 is available annually. Application should be made to the President of the Stanford Student Chapter of the American Society of Civil Engineers.

*Stanford Women's Club of San Francisco Scholarship.*—The provisions of this scholarship, established in 1924, stipulate that it shall be awarded preferably to a San Francisco girl and that the need of the student shall be the chief concern. The amount available annually is $150.

*John Maxson Stillman Scholarship in Chemistry.*—Established from the Stillman Testimonial Fund, presented to Professor John Maxson Stillman by graduates and former students in chemistry, and by others, on the occasion of his retirement from active service in the University, in May 1917. The amount available is $150 per year, and the scholarship is open to undergraduate or graduate students in the Department of Chemistry upon nomination by the department faculty and approval of the President. Application should be made to the Executive Head of the Department of Chemistry.

*Palmer Wilkinson Taylor Scholarship Fund.*—In 1927, the Trustees of the University received from the friends of Palmer Wilkinson Taylor, '19, a fund of $2,200, the income ($100) to be used for the establishment of an annual scholarship in his memory. The scholarship is to be awarded to a worthy student of the University, who shall be nominated by the President of the Stanford Chapter of the Sigma Nu fraternity.

*Theta Sigma Phi Scholarship.*—In 1929 Theta Sigma Phi established a scholarship of $250, to be awarded biennially, preferably to a woman student in Journalism.

*Beach Thompson Memorial Scholarship.*—In 1931 Mrs. Beach Thompson established a scholarship of the annual value of $300 in memory of her husband.

*Harry A. True Memorial Scholarship.*—In 1927 Miss Helen E. True established a scholarship of the annual value of $300 in memory of her father, Harry A. True. This scholarship is to be awarded to a needy and worthy student of the University.

*University Graduate Scholarships.*—In 1919 the Trustees of the University established for graduate students thirty Stanford scholarships, each paying $200 per year of three quarters, awarded for a term of one year, and allowing for the scholar's reappointment at the expiration of this time. In 1927 the Trustees established six University Graduate Scholarships of the value of $100 per quarter for four quarters. Holders of these scholarships are required to pay tuition and community fees, the graduation (diploma) fee, laboratory expenses, and all similar charges laid upon other graduate students.

*Charles W. Willard Scholarship.*—In 1925 the University received from the partners and family of the late Charles W. Willard a gift of $5,000, the income to be used to establish a graduate scholarship for advanced study in administrative, public health, or social service work. This scholarship is to be given only to graduates of the Stanford School of Nursing who, in the opinion of the Superintendent of the Hospital and the Superintendent of Nurses, are best qualified to pursue such advanced course of study. The annual amount available is $250. Application should be made to the Superintendent of Nurses, Stanford School of Nursing, San Francisco.

*Henry Windt Junior Memorial Scholarship in Engineering Chemistry.*—In 1927 the University received from Henry and Viola Windt a gift of $8,500 to establish a scholarship fund in memory of their son, Henry Windt, Junior. The income ($400) is to be awarded annually to a worthy student engaged in the study of engineering chemistry.

### Administered by Other Institutions

*Harvard Club Scholarships* (for students residing in the neighborhood of San Francisco).—The Harvard Club of San Francisco offers two scholarships, of the annual value of $400 each, to students desirous of pursuing undergraduate studies in Harvard College, or postgraduate studies in Harvard University. Other things being equal, preference will be given to undergraduates. In awarding these scholarships the scholarly attainments of the applicants, as shown by their records, their character, needs, and general development will be considered. Applications should be made in writing, not later than February 15, to Professor George J. Peirce, Stanford University.

*Rhodes Scholarships.*—Under the will of the late Cecil Rhodes two scholarships are assigned to each state and territory in the United States. Each scholarship has a yearly value of £350, and is tenable at any college in the University of Oxford for three successive academic years.

Candidates must be unmarried, must be citizens of the United States, and must be not younger than nineteen nor older than twenty-five on October 1 of the year in which they are elected. All scholars, before going into residence, shall have reached at least the end of their sophomore year at some recognized degree-granting university or college. In accordance with the wish of Mr. Rhodes the trustees desire that "in the election of a student to a scholarship, regard shall be had to (1) his literary and scholastic attainments; (2) his fondness for and success in manly outdoor sports, such as cricket, football, and the like; (3) his qualities of manhood, truth, courage, devotion to duty, sympathy for and protection of the weak, kindliness, unselfishness, and fellowship; (4) his exhibition of moral force of character and of instincts to lead and take an interest in his schoolmates during school days."

## FELLOWSHIPS

### Administered by Stanford University

*American-German Student Exchange Fellowship.*—With funds donated by friends of the University for the purpose of furthering international understanding and good will, the Trustees of this University have established the American-German Student Exchange Fellowship. This fellowship is open to graduates or advanced students of German universities who desire to spend one year in advanced study and research at this University. The fellows are selected by the University authorities representing the Exchange in Germany.

*Buckel Fellowship.*—In 1914 the University established through the co-operation of the trustees of the estate of Dr. C. Annette Buckel, a research fellowship for the study of backward and feeble-minded children. The annual income from the Buckel estate is supplemented by a sum appropriated by the Trustees of the University, making the total amount available for the fellowship $500. Application should be made to the Executive Head of the Department of Psychology.

*Teaching Fellowships in Chemistry.*—The Board of Trustees established in 1917 two teaching fellowships in Chemistry. The amount available for 1930–31 is $750 each. Application should be made to the Executive Head of the Department of Chemistry.

*DuPont Fellowship in Chemistry.*—In 1928 E. I. duPont de Nemours and Company established a fellowship in Chemistry. For the academic year, 1930–31, the value of the fellowship is $750. Application should be made to the Executive Head of the Department of Chemistry.

*Edward Curtis Franklin Fellowship in Chemistry.*—Established in 1929 from the Edward Curtis Franklin Testimonial Fund, presented to the University by the students, associates, and other friends of Professor Franklin upon his retirement from active service in the University. The annual amount available is $500 and the fellowship is open to any properly qualified candidate in the Department of Chemistry upon nomination to the President by the Department Faculty. Application should be made to the Executive Head of the Department of Chemistry.

*James D. Haile Memorial Fellowship.*—In 1930 the University received from the estate of Sara Anne Haile the sum of $10,000 for the establishment of the James D. Haile Memorial Fellowship. This fellowship is to be awarded annually to a needy and worthy student, graduate or undergraduate, in the School of Law. The amount available annually is $475.

*High-Voltage Laboratory Research Fellowship.*—In 1926 through an anonymous gift a fellowship carrying an annual stipend of $500 was established in the Electrical Engineering Department and designated by the authorities of the University the "High-Voltage Laboratory Research Fellowship." The department promulgates high-voltage laboratory research in two categories:

I. Research undertakings as a department, in some or all of which the hearty co-operation of the holder of this fellowship will be desired.

II. Research undertakings with the approval, support, and guidance of the department to permit the definition and solution of a problem of particular interest to the individual student and of promise of helpfulness in education and practice. Application should be made to the Executive Head of the Department of Electrical Engineering.

*Donald Porter Jacobs Research Fellowship.*—In 1928 a gift of $5,000 was made by Mr. and Mrs. Albert P. Jacobs to establish a research fellowship fund in memory of their son, Donald Porter Jacobs. The income of this fund is to be awarded annually to a worthy graduate student in whatever field of study may seem most desirable at the time. The amount available for the academic year 1930–31 is $240. Application should be made to the Committee on Graduate Study.

*Eric Knight Jordan Research Fellowship in Geology.*—In 1926 Dr. and Mrs. David Starr Jordan established a fellowship fund in memory of their son, Eric Knight Jordan, to be awarded annually. The amount available for 1930–31 is $497. Application should be made to the Committee on Graduate Study.

*George Loomis Fellowship in American Literature.*—In 1929, Mrs. Kate Felton Neilson established a fellowship of the annual value of $1,000 to be awarded to a graduate student deemed best fitted to carry on advanced study "within the scope of the Charlotte Ashley Felton Memorial Library." This fellowship is to be awarded by the Committee on Graduate Study acting jointly with the Director of University Libraries. Application should be made to the Committee on Graduate Study.

*McCallum Research Fellowship.*—In 1930 the American Rubber Producers, Inc., established a fellowship "to foster research work in the field of chemistry relating to Guayule Rubber, and to stimulate interest therein." The annual amount of the fellowship is $1,000.

*Teaching Fellowships in Mathematics.*—In 1926 the Department of Mathematics established two teaching fellowships of the annual value of $750 each. Application should be made to the Executive Head of the Department of Mathematics.

*Physical Therapy Fellowship.*—This gift, established by an anonymous donor in 1923, and to be known as the Rehabilitation Fund of the Medical School, provides a fellowship for six months. The amount available is $300. Application should be made to the Dean of the Stanford School of Medicine, San Francisco.

*Fellowships in School Administration.*—In 1919 a fellowship was established jointly by Professor Cubberley and the Board of Trustees, of the annual value of $500, and known as the Fellowship in School Administration. In 1924 a second fellowship of the same character and amount was established by similar joint action. Application for these fellowships should be made through Professor Cubberley.

*Shell Research Fellowship.*—In 1929 the Shell Development Company established a fellowship of the annual value of $900, to be used for the advancement of learning in the field of physical or organic chemistry. Application should be made to the Executive Head of the Department of Chemistry.

*Thomas Welton Stanford Fellowship in Psychic Research.*—From the "Psychic Fund," created by Mr. Thomas Welton Stanford, in 1913, the Trustees have established this fellowship for research in psychic phenomena.

*Ruth Stern Fellowship for the Study of Diseases of the Nervous System.*—In 1929 Mrs. Louis Stern established a fellowship to be awarded annually for the study of nervous diseases. For the academic year 1930–31, the amount available is $2,500.

*Fellowship in the Study of Gifted Children.*—In 1919 a fellowship for the Study of Superior Children was established jointly by Professor Terman and the Board of Trustees, the amount available varying from year to year. Application for this fellowship should be made through Professor Terman.

*University Fellowships.*—The Trustees of the University established in 1917 two University fellowships, and in 1919 six additional fellowships, of the value of $750 each per year of three quarters, to be awarded annually by the Committee on Graduate Study for the purpose of fostering advanced study and research in the University. In 1925 four additional fellowships of the value of $400 each were established. In general these fellowships will not be awarded to students in their first year of graduate study. Requests for re-appointment to University Fellowships, as well as new applications, must be in the hands of the Committee on Graduate Study by February 15 preceding the academic year for which the fellowship is desired.

*Royall Victor Fellowships.*—In 1927, under the will of Charles F. Brooker, the sum of $117,054 was bequeathed to the University to establish the "Royall Victor Fund" in memory of Royall Charles Victor of the class of 1900. The annual income of this fund ($5,600) is to be used in providing fellowships for students of ability, character, and moderate means, preference being given to candidates, if any, of the requisite qualifications who reside or have resided in the state of Connecticut.

### Administered by Other Institutions

*American Field Service Fellowships for French Universities.*—The American Field Service Fellowships have been established in order that advanced American students may avail themselves of the great advantages offered by the French universities in every field of science and learning. The fellowships are open only to men. A candidate (1) must be a citizen of the United States or of one of the United States' possessions; (2) must at the time of making the application be a graduate of a college of recognized standing or of a professional school requiring three years of study for a degree, or, if not qualified in either of these ways, must be twenty-four years of age and must have spent five years in work requiring high technical skill; (3) must be of good moral character and intellectual ability, and of suitable personal qualities; (4) must have a practical ability to use French books, both in general subjects and in his special field, and be able to speak French and understand lectures delivered in French.

Each fellowship has an annual value of $1,400 and is tenable for one year, with possibility of renewal for a second year if circumstances are favorable. Applications should be received by the Executive Secretary, American Field Service Fellowships, Institute of International Education, 2 West Forty-fifth Street, New York City, before January 1.

*Commission for Relief in Belgium (C.R.B.) Fellowships.*—In 1920 there was established an exchange of advanced students between Belgian and American universities under the auspices of the C.R.B. Educational Foundation, Inc. Application for these fellowships for Americans should be made before December 15 through the President's office, or directly to the Secretary of the Foundation, 42 Broadway, New York, N.Y.

*John Simon Guggenheim Memorial Foundation Fellowships.*—In 1925 Senator and Mrs. Simon Guggenheim announced a preliminary gift of $3,000.000 for the endowment of the John Simon Guggenheim Memorial Foundation Fellowships, in memory of their son. The purposes of the Foundation are "to improve the quality of education and the practice of the arts and professions in the United States, to foster research, and to provide for the cause of better international understanding."

The fellowships, tenable abroad, are open to both men and women, ordinarily between the ages of twenty-five and forty, who have demonstrated unusual capacity for original research or creative work.

The annual value of each fellowship is approximately $2,500. Application should be made to Henry Allen Moe, Secretary, John Simon Guggenheim Memorial Foundation, 551 Fifth Avenue, New York City.

### Awards and Prizes

*William Roberts Eckart Research Fund for Mechanical Engineering.*—Together with his mother, sister, and two brothers, Professor W. R. Eckart, of the Department of Mechanical Engineering, established this fund, in 1923,

as a memorial to his father, William Roberts Eckart, the income each year to be applied toward the furtherance of research in the Department of Mechanical Engineering, either by grants for research, for scholarships or fellowships, for prizes, or in any other manner which, in the judgment of the President of the University and the full professors of the Department of Mechanical Engineering, may seem most desirable to produce the best results.

For the present, the donors suggest that: (1) a prize of $50 or more, depending upon the amount of interest available, be awarded to that student in Mechanical Engineering presenting the best thesis during each college year, this award to be known as the "William Roberts Eckart Prize in Mechanical Engineering"; (2) in judging the merits of the various theses submitted, the following points be considered: "conception, originality, analysis of problem, method of attack, experimental work, presentation of data, and results and conclusions drawn from same"; (3) the awards be made by a committee consisting of the full professors of the Department of Mechanical Engineering; (4) no award be made in any year in which no thesis of sufficient merit, in the judgment of the committee, is presented.

*Colonial Dames Scholarship.*—Established in 1923 and, either upon the recommendation of the Department of History or by competition, to be awarded annually to the student submitting the best paper on a subject in the field of colonial history. The amount available is $100 annually.

*Irene Hardy Poetry Prize.*—In 1925 the friends of Irene Hardy, formerly an instructor in the English Department at the University, established in her memory a biennial poetry prize of $50 to be awarded, through the agency of the English Department, for the best poem written by an undergraduate student registered at Stanford.

*Clarence Urmy Award.*—In 1930 the University received from relatives and friends of Clarence Urmy the sum of $1,000 for the establishment of an award, its purpose being to perpetuate the spirit of this poet, teacher, and critic. The award consists of a cash prize of approximately $50 each year, to be awarded to the student submitting the best original poem to the English Department of the University.

# STUDENT GOVERNMENT, GUIDANCE, AND SELF-SUPPORT

## CONDUCT OF STUDENTS

The Committee on Student Affairs exercises the authority of the University over all students individually with respect to personal conduct, and, with the exception of athletic and debating teams, over student organizations which bear the name of the University, or which represent the University in non-academic activities, and, in general, assumes such measure of authority over non-academic organizations of students as may be needful to safeguard the general good name and well-being of the University community.

Individual or collective student enterprises which involve the absence of the participants from the University, while using the University name must receive the official sanction of the Faculty Committee concerned.

In the government of the University the largest liberty consistent with good work and good order is allowed. Students are expected to show both within and without the University such respect for order, morality, personal honor, and the rights of others as is demanded of good citizens. Failure to do this will be sufficient cause for removal from the University.

In 1908 the Board of Trustees of the University provided that in all future rentals or leases of houses as fraternity chapter houses it shall be expressly stipulated that no intoxicating liquors of whatever kind shall ever be sold or used on the premises. The Trustees also by formal resolution requested the Academic Council to prohibit the use of liquor in fraternity chapter houses, student clubhouses, and other student lodgings.

This action of the Board of Trustees is in harmony with the instructions given by the Academic Council to its Committee on Student Affairs, and defines the policy of the University. Prohibition of the use of liquor extends to all student lodgings whether on the campus or elsewhere, and the University assumes that the act of registering as a student implies full acceptance of this policy.

## STUDENT CONTROL

In 1911–12 the Faculty Committee on Student Affairs and the University Conferences entered into an agreement by which responsibility for the government of the students and for maintaining University standards was assumed by the men and women of the University. Since then the women have continuously discharged their responsibility, and the making and enforcing of the social regulations which govern women students are in their hands. The delegation of responsibility, temporarily recalled, for men, in 1918, was resumed in 1919–20, under an agreement between the President and the men of the University. The Men's Student Council is responsible for the enforcement of University rules governing conduct of men students, and all actions of the Council are submitted directly to the President for sanction or disapproval.

## HONOR CODE

In 1921 the Honor System was established by the Academic Council of the University. Under this system, responsibility for honesty in the conduct of examinations rests (1) with each individual student, who is pledged not to receive or give aid in examinations, (2) with the major students of each department, whose duty it is to conserve and strengthen the system within the departments, and (3) with the Student Councils, who have general supervisory control and the power to adopt regulations and deal with infractions of the system in the same manner as other cases of discipline. In 1929 the designation "Honor System" was changed to "Honor Code."

## UNIVERSITY HEALTH CONTROL

*The Committee on Public Health.*—This administrative committee of the Academic Council "considers matters pertaining to the health of the University community in consultation with the properly constituted authorities." It has "authority . . . . to require the observance of such limitations of University work and residence as may be deemed necessary in individual instances, and to require temporary or permanent withdrawal from the University when the interests of the student or the University may demand it. . . . ." "The University curriculum is adapted to students in normal health and physical development. Students whose health distinctly interferes with regular University work and residence will be required to withdraw or will remain strictly on probation with the Committee on Public Health." The Committee is authorized ". . . . to exercise the official powers of a local Board of Health when called into action by the County Health Officer."

*The School of Hygiene and Physical Education.*—The activities of the University "associated with . . . . the student and University Health Services are included as integral parts of the School of Hygiene and Physical Education for Men."

*University Health Service.*—The public health of the University community is safeguarded by the Committee on Public Health, the chairman of which is the University Health Officer, who is also deputy county health officer. Regular inspections are made of premises, food supplies, and the handling of foods. Bacteriological examinations are made regularly of water supplies and swimming pools, and of samples of milk from all dairies that supply the community. Arrangements have been made with the Palo Alto Hospital for the care of students with non-contagious diseases. Communicable diseases are controlled through careful observation of all suspicious cases and known contacts. Arrangements have been made with the Public Health Laboratory of the City of Palo Alto for assistance in the laboratory diagnosis of reportable cases and in the identification of carriers on the campus. The University Isolation Hospital on the campus is available for control and treatment of reportable cases.

*Vaccination.*—Not later than four weeks after the day of registration, every student must file with the Committee on Public Health a certificate, signed by the vaccinator, who must be a duly licensed and practicing physician, giving exact dates of vaccination, and showing acceptable vaccination within seven years.

Non-compliance with these requirements will result in a fine of two dollars after four weeks, and cancellation of registration after five weeks from the day of registration.

Certificates are to be filed at the Registrar's office. They will be returned upon request. "Conscientious objections" will not be recognized as exempting anyone. Unavoidable delay, or failure to secure a satisfactory certificate, will not exempt anyone from the fine.

(It is advised that candidates comply with this requirement before coming to the University, and that vaccination certificates be sent in advance by mail. Blank certificate forms may be obtained on application to the Secretary of the Public Health Committee, at the Registrar's office.)

### Student Health Service for Men

A health examination is required of all men students prior to the completion of matriculation. This first examination is in two parts. One is a rapid, thorough examination that is mainly physical, given before the student enrolls in his classes. The other is a leisurely conference, that may be largely subjective, with such additional procedures as may be necessary to complete the examination, during the first quarter of the student's attendance. Subsequently, required health examinations are repeated annually. Men who are found in such condition that they probably will be unable to carry the normal student program without health injury to themselves, or who are a menace to the health of their fellow-students, are denied matriculation or continued registration in the University.

All men planning to participate in athletics are required each season to pass satisfactorily a health examination before going into active training.

Important health advice is followed up in later required conferences in order to learn the use the student has made of the advice given. Those who fail to take reasonable care of incapacitating defects, or who expose others to health injury because of their lack of self-care, are not permitted to remain in the University.

Hours are scheduled every day, Saturday morning included, in the offices of the Student Health Service for men who desire help in the solution of their problems of physical, emotional, or social health.

*Medical Treatment.*—The University is able to offer only limited medical treatment to its students. Sick students should call at, or telephone to, the offices of the Student Health Service for help in securing the service of the private physicians or surgeons of their choice.

Emergency treatment may be given in the offices of the Student Health Service, safeguarding the student until the arrival of his own physician. The functions of this service are educational and advisory. A limited office service is available for the treatment of ambulatory cases, but every student is expected to select his own private physician on whom he should call in case of illness.

The staff of the Student Health Service is maintained in order that students may be given careful health examination and receive information and advice that will help them understand and take intelligent care of their health problems. Consultation with experienced outside specialists, X-ray examinations, and laboratory tests may be secured without expense to the student in case the staff examiner finds such additional information necessary to his solution of a health problem.

*Athletic Injuries.*—Students training for, or participating in, athletic competition do so voluntarily and assume the risks incident thereto. Nether the University nor the Board of Athletic Control (which is a part of the

University) has any legal responsibility or obligation to meet the expense of caring for injuries sustained by students because of athletic training or competition. Neither the University nor the Board of Athletic Control assumes such responsibility for students who enter into such training or competition. Nevertheless, the policy of the Board of Athletic Control is to pay, within reasonable limitations determined by it, the expense of the treatment of injuries received by athletes while training for or participating in intercollegiate sport, provided the injured athlete first secures the authorization of the Medical Adviser in charge of athletes, and subject at all times to the right to decline to give such aid or to discontinue further aid, when it is being given. Financial aid will not be given in case the injury is a result of the carelessness of the injured man. For instance, no such help will be given to the man who, having an old sinus trouble, goes on the swimming or water-polo squad and thus exposes himself to an almost inevitable return of sinus trouble; the athlete who neglects official directions to wear ankle straps or other safeguards should not expect to escape paying for his own carelessness in case of consequent injury; the athlete who fails to wear clean clothing and thereby becomes infected cannot expect the Board of Athletic Control to pay any medical or surgical bills that may be consequent to his carelessness.

(See also *Announcement of School of Hygiene and Physical Education for Men.*)

### Student Health Service for Women

All women students entering the University for the first time are required to have a physical examination. This is given by the Medical Adviser of Women and assisting women physicians of Palo Alto during the week preceding registration. If any serious abnormal condition is disclosed, the student is withheld from entering. Advice is given concerning minor conditions which would be amenable to treatment and hygienic living.

During the first week of the quarter the Lower Division students and all women who are taking any work in the Department of Hygiene and Physical Education for Women receive an examination to determine, not only their fitness for athletic work, but the type of activity which would best meet their specific needs.

If the first examination has disclosed the need, it is followed by a second more detailed one and periodic "follow-up" examinations which insure the student's following out the procedures suggested. All women who show any organic or functional derangements of heart, lungs, glands, etc., as well as all malnutrition cases, are required to report weekly or monthly, as the case requires, and advice is given as to daily hygiene.

*Consultation hours.*—Hours are scheduled for voluntary consultation with the Medical Adviser.

*Medical Treatment.*—Emergency treatment for any illness or injury is supplied at the office of the Medical Adviser, or, if necessary, at the student's living quarters. If the illness is sufficiently serious to require hospitalization, the student is turned over to the physician of her choice, as the University does not undertake the treatment of its students aside from the emergency treatment.

In any case of illness an effort is made to supply all adjuncts in the way of laboratory analysis, X-ray examinations, or examinations by specialists, that will assist in an accurate diagnosis.

The house mothers of the various sorority houses and the Director of the women's dormitory are requested to send in daily reports of any illness in their respective houses. In this way the medical service is kept informed of any illness among the students, and prompt attention is given to them.

*Athletic Injuries.*—The University is not responsible for any accidents or injuries incurred in athletic sports or contests.

### Students' Hospital Fund

The University does not maintain an infirmary or dispensary for the care of students who are ill. The Students' Hospital Fund, which is financed by the payment of $5 per quarter by each student as part of the Community Fee, provides financial assistance to students needing medical treatment or emergency surgical treatment at the Palo Alto Hospital, at the Stanford University Hospital in San Francisco, or at the Isolation Hospital located on University property. It also defrays part of the expenses of students housed at the Rest Homes. Charges for calls at a doctor's office, or for visits by a doctor to a patient's home, must be paid by the student.

*Hospitals.*—The Students' Hospital Fund will be available to students admitted for medical or emergency surgical treatment to the hospitals operated by the University in Palo Alto or San Francisco, on request of the Medical Adviser or a local physician, and rebates for service will be paid in accordance with the following regulations:

1. Students receiving medical or emergency surgical treatment will be allowed four dollars a day toward the regular hospital fee for the first seven days, and two dollars a day after the first seven days for a total of not more than thirty days. Allowances for longer stays will be determined by the Committee.
2. Of the total bill presented by the physician for hospital visits (medical cases) the Students' Hospital Fund will pay toward the total cost a sum not to exceed $15 for the first week, and not more than $1.50 toward the cost of each visit.
3. The Fund will pay twenty-five per cent of the charge for an emergency operation, this amount not to exceed $25. In operative cases students will not be eligible for the benefits of the Students' Hospital Fund unless the operation is of an emergency character.
4. The Fund will pay X-ray and laboratory fees, charges for the use of the operating room and for anesthetics, and charges for the application of casts.

The foregoing charges are paid only in the event of a student's being admitted to a hospital on the order of the Medical Adviser of Men, the Medical Adviser of Women, or of one of the local physicians.

The University cannot advise students as to the choice of a physician.

*Rest Homes.*—The Students' Hospital Fund will be available for the benefit of students in Rest Homes who are temporarily in need of home conditions and home care, but who do not need hospitalization, under the following conditions:

1. The homes must be approved as Rest Homes for men by the Medical Adviser of Men, or Rest Homes for women by the Medical Adviser of Women.
2. Admission of students to such Rest Homes shall be with the approval of the Director of the Men Students' Health Service, or of the Medical Adviser of Women.
3. The student on admission shall designate a private physician of choice so

that no delay will occur in the event that the service of an attending physician is required.

4. A rate of three dollars a day shall be charged by the Rest Home, with the understanding that the Hospital Fund will pay the entire amount of the bill for the first seven days only, charging the student one dollar a day for this period of residence, but that the Hospital Fund extends no financial aid to the student after the first seven days.

## VOCATIONAL GUIDANCE

The Committee on Vocational Guidance is maintained for the purpose of "disseminating among students the information necessary to make an intelligent choice of a vocation and to arrange a course of study preparatory to entering the vocation chosen." In accordance with this purpose the Committee has prepared a bulletin of *Vocational Information* dealing with the vocations which university graduates enter, which will be mailed to any address on receipt of twenty-five cents. The reference room of the University Library contains a section of books and pamphlets for students who wish to familiarize themselves with the general possibilities in the field of vocations.

In order to supplement the *Vocational Information* bulletin and to aid students in easily securing references on careers the Committee has prepared annotated bibliographies for each of the vocations that are of special interest to college men and women. These bibliographies are in the hands of advisers, librarians, and members of the Committee. Students may obtain copies from heads of departments or from the Secretary of the Committee, at the Registrar's office. A large number of shorter studies and of references on unusual vocations is available at the Secretary's office.

The Committee is developing an extensive list of men and women who are in a position to discuss with students the opportunities and drawbacks of the various careers. Students desiring such personal conferences should consult regarding appointments with the heads of their own departments, the Deans of Men and Women, or the Secretary of the Committee.

The University Committee co-operates with Vocational Guidance Committees from the Associated Students and Associated Women Students in a series of informal vocational conferences and interviews that are held each year. The student committees also make a canvass of the Lower Division students to ascertain their need for career information and the vocations in which they are interested.

The Strong Vocational Interest test, which has been developed at Stanford University, aids students in interpreting their interests as they pertain to vocational activities. Students desiring to take this test should apply at the Registrar's office. Other self-analysis aids and tests may be secured through the Secretary of the Vocational Guidance Committee.

While a student is expected to choose a vocation before or during his course of study, the University does not attempt to give full training for this vocation. It is believed, however, that one who has met the requirements for graduation from a given department and has made a wise selection of special courses, both in the major department and in other departments, will have an excellent foundation for the vocation he has chosen. After graduation it may be necessary to do graduate work in another institution; or to serve as an apprentice; or to take a minor position which may ultimately lead to a permanent vocation.

## SELF-SUPPORT OF STUDENTS

A considerable number of students find it possible to earn the whole or a part of their expenses while attending the University. Success depends upon the student himself. The University, through the Appointment Service, and in other ways, is able to help the student both in finding work and in making plans. It cannot, however, assume the responsibility of supplying work for all applicants. The student who combines initiative and good health with industry and reliability, and who is willing to adapt himself to circumstances, is the one who succeeds in this as in other undertakings. It is, however, the opinion and advice of those most closely in touch with the problem of student self-support that no new student should register unless he has sufficient means at hand or in prospect to carry him through his first quarter.

Students who are contemplating earning their own expenses at the University should neither register for a heavy course nor attempt to engage in more than one student activity, particularly during their first quarter at the University. (Self-supporting students whose scholarship is high are given preference in the awarding of scholarships.) While it is an education in itself for the student to work his own way, there are many valuable features of college life that must be foregone in order to earn a living. Students who have the necessary means will do well to devote any energy not needed in their studies to various extra-curricular activities rather than to earning their expenses. Because the opportunities for self-support are limited the student should hesitate to take over a money-making position unless he really needs to do so.

The student is advised not to enter the University without a reserve fund to provide for immediate needs or unexpected contingencies. This fund ordinarily ought to amount to at least $250, although it is preferable for new students to have a larger sum. The student needs time to get acquainted; to become adjusted to University methods and requirements; to systematize his University work; to learn about the various opportunities for earning money; and to discover how much time he can afford to devote to self-support and still make study his main object aside from keeping in good health. In general the student should not undertake to earn a larger proportion of his expenses than is absolutely necessary, for his time is too valuable for this and should be devoted to his studies to the largest extent possible. It is recommended that no new student plan to devote more than four hours a day to earning his expenses.

One of the most popular means of earning board at the University, whether for men or women, is by waiting on table. From two to four hours per day will cover the required time, which comes when it is least missed. Such chances are to be found in the dormitories, in cafés and boarding houses, and in public and private eating clubs, though competition for such positions is severe. In connection with the University dining halls and dormitories, there are opportunities for employment as waiters, bus boys, cashiers, soda fountain clerks, telephone operators, and typists, at the established rate of pay, fifty cents per hour. (Application should be addressed to the Director of Dining Halls, Stanford University, California.) New students should make application as soon as registration has been assured.

Other forms of work for the relatively unskilled are gardening, housework, care of children, janitor service, special jobs in connection with gymnasium and athletic activities, manual labor in connection with laboratory sections, agencies for laundries and other concerns. Positions requiring more or less preliminary training have to do with plain cooking, clerking, book-

keeping, stenography and typewriting, music for dances, newspaper reporting, printing, tutoring, and the management of student enterprises. Other means of support are found in the scholarships and fellowships offered, and through the loan funds now available. A limited number of opportunities during the short vacations, particularly at Christmas time, can be found in San Francisco and elsewhere, as special postoffice clerks or salesmen in the larger stores.

New students who expect to earn part or all of their expenses at the University should apply to the Appointment Service for registration forms as soon as possible after being assured of admission to the University. If possible the student should be on hand a short time in advance of the opening of the quarter equipped with working clothes and, if possible, a bicycle. After a personal interview he should report regularly until sufficient employment is secured. Women should discuss their plans also with the Dean of Women.

### Assistantships

Student-assistant positions in the various departments are available for either graduates or undergraduates. There are opportunities for assistants in teaching and laboratory work, assistants in quiz sections, in the reading of examination papers and reports, as well as a number of minor positions where mere labor without skill or special knowledge is required. These positions range in pay from $35 to $200 each per quarter, but are not ordinarily available to new undergraduate students.

Each department selects and recommends for appointment its own assistants. Requests for information as to pay and duties, and applications for appointment, should be addressed to the Executive Head of the department in which a position is sought.

## APPOINTMENT SERVICE

The Appointment Service, located in the Registrar's Office, is available to all students of the University. Its purpose is briefly as follows:

1. To assist students and graduates of the University to obtain permanent employment or promotion in the kind of work for which they have prepared themselves.

2. To help students of the University who are earning part or all of their own expenses to find suitable part-time employment.

3. To help students to find full-time temporary employment, whether the purpose be merely to earn money or to become more proficient in their chosen field of work.

4. To give inquiring students and graduates as accurate information as possible regarding the actual opportunities presented by the different fields of employment. The investigation which this work involves is an important feature of the Appointment Service.

Statistics covering the work accomplished are compiled annually, and copies of these are available for other colleges and universities, and for anyone personally interested, upon request.

The Appointment Service aims to secure and keep on file a complete record of the education, experience, and personal qualifications of each applicant for a position, to be used by prospective employers in determining whether or not the applicant is qualified for the position to be filled. In order that the statements made may be frank and reliable, they are never shown to applicants.

The University reserves the right of refusing to extend its co-operation to applicants who apply for positions for which they are manifestly unfit.

Forms for registration may be obtained of the Appointment Service upon request. When asking for forms it is necessary to state whether part-time, temporary, or permanent employment is wanted, and, in the case of permanent employment, whether teaching or some other profession.

Teachers must renew registration annually, preferably in September. Registration after February, though permissible, seriously interferes with placement. Those desiring permanent employment other than teaching should renew their registration the first of every month—particularly the first of September, which is the beginning of the fiscal year. Those seeking part-time or temporary employment must renew registration at the beginning of each quarter. The responsibility of renewing registration is placed upon the applicant.

At the time of registration, applicants for permanent positions are charged a nominal fee to cover cost of compiling an accurate personnel record designed to serve during the whole lifetime of the individual. A small charge is also made for editing, copying, and mailing records. All classes of applicants are charged for telephone and telegraph bills incurred in their behalf. No charge is made for services rendered applicants for part-time or temporary work, and no charge is made for the securing of positions of any kind.

All communications should be addressed to The Appointment Service, Stanford University, California.

# REGISTRATION AND UNIVERSITY CREDIT

## REGISTRATION

On the appointed registration days in October, January, April, and June, each student must obtain a certificate of registration *in person* at the Registrar's office.

Matriculated students may register after the appointed registration days upon payment of a special fee: two dollars on the first or second day, three dollars on the third day, four dollars on the fourth day, and so on up to the maximum of ten dollars. Registration of undergraduates (including special students) will not be permitted later than three weeks after the beginning of instruction. (For the summer quarter, registration is limited to two weeks.) Places are not held for women, or for new Lower Division men, after the regular registration days, except by permission of the Committee on Registration granted in advance.

## STUDY-LIST CARD

At the Registrar's office the student receives a card for selection of studies for the quarter. This card, properly filled out, and approved for Lower Division students by the Committee on Lower Division Administration, for others by the Major Department, must be filed with the Registrar at the time of registration; but late study cards will be accepted upon payment of a special fee of two dollars. Students registering late are admitted to particular classes only by permission of the instructor concerned. All work for which university credit is desired must be duly registered.

## ENROLLMENT IN CLASSES

A student desiring to enroll in any class presents his certificate of registration to the instructor at the beginning of each quarter. ( In certain Lower Division classes he must also present the seat card issued by the Lower Division Committee which assures enrollment.) Whether the student is qualified for enrollment in a particular class is a question to be decided by the instructor in charge. In general the prerequisites for taking any given course are noted under "Courses of Instruction."

## CHANGE OF STUDIES

A student desiring to drop a subject once taken up, or to take up a new subject after the study card has been filed, must present to the appropriate committee a petition for such change, approved by the major department and by the instructors whose subjects are to be taken or dropped. In general, petitions so approved, and not involving courses required of Lower Division students, if they do not give the student too many unit-hours, or too few unit-hours, and if presented within two weeks after the beginning of the quarter, are granted without question. At the end of the first two weeks all study-lists are to be considered as fixed. After this period petitions to drop or take up courses are granted only for extraordinary reasons, and only on payment of a special fee of two dollars for each course; if otherwise accept-

able but presented after the close of the quarter, they will be granted only on payment of a special fee of four dollars for each course. During the last four weeks of the quarter no courses may be officially removed from the student's study-list for any reason whatever; but if failure to complete a course satisfactorily be due to illness or other unavoidable circumstance, application may be made to the Committee on Scholarship for such relief as shall seem equitable.

### CHANGE OF MAJOR SUBJECT

Petitions to change the major subject will be granted when approved by the departments in charge of both the old and the new subjects, the student being held to all the requirements of the new major subject.

### AMOUNT OF WORK

Graduate students are not held to any prescribed number of units, but ordinarily registration will not be permitted unless such students are prepared to devote at least half of their working time to university study.

The normal amount of work to be registered for each quarter by undergraduate students is fifteen units. Registration by undergraduate students for less than thirteen units of work is permitted in the case of students doing outside work for self-support, where considerations of health are involved, or for other reasons satisfactory to the Committee on Registration. All such programs of study must be approved by the Major Department or Lower Division Committee, and by the Committee on Registration.

Maximum limits upon the number of registered units which may be counted toward the 180 units required for graduation apply to the following classes of students:

1. Students in their first quarter of residence.—Upper Division students limited to 18 units; Lower Division students, to 16 units.

2. Students whose previous Stanford record falls below an average grade of B (grade-point rating of 3).—Limited to 18 units (except as noted below under 3).

3. Students who have completed at least 123 of the 180 units required for graduation, and whose previous Stanford record reaches an average grade of C+ (grade-point rating of 2.5); or whose record reaches in the three preceding quarters of residence an average grade of B (grade-point rating of 3).—Upon application to the Committee on Registration may be granted permission to undertake completion of the work for the degree of Bachelor of Arts in three quarters; students who have completed 140 units, under the above conditions, may apply for completion of the work in two quarters; students with 159 units, in one quarter.

4. Students whose previous Stanford record reaches an average grade of B (grade-point rating of 3).—Counting value of approved program of study not restricted.

The grade-point rating is obtained by dividing the total number of grade points received by the number of registered units. The total number of registered units is the sum of all units registered for each quarter, less those which have been dropped by permission.

Petitions for irregular registration are to be presented at the beginning of the quarter.

Every unit for which credit is given is understood to represent approximately, for the average student, three hours of actual work per week, through

one quarter. Thus, in lecture or recitation work, for one unit of credit one hour per week may be allotted to the lecture or recitation and two hours for preparation or subsequent reading and study on the part of the student; but if a less amount of time is allotted for preparation or subsequent reading or study, there shall be a proportionate decrease in the amount of credit. Where the time is wholly occupied with drawing, field, or laboratory work, or in the classroom work of conversation classes, three full hours per week through one quarter are expected of the student for each unit of credit; but where such work is supplemented by systematic outside reading or experiment under the direction of the instructor, such a reduction may be made in the actual drawing, field, laboratory, or classroom time as seems just to the department concerned.

## INDEPENDENT STUDY PLAN

Any student in the Upper Division whose university record is of an average B grade, or who is deemed by his school or department to be specially qualified may, with the consent of the school or department and with the approval of the Committee on Independent Study, enroll under the Independent Study Plan. This may be done at the beginning of the junior year, or at the beginning of any quarter thereafter, but it is urged that arrangements for enrollment be completed at the end of the preceding quarter.

The plan of study is arranged with the intention of providing a program of work both more comprehensive and more intensive than that of the average student, calling for greater initiative, more self-direction, and a higher type of thinking. Such a plan may consist of independent work entirely or of courses and independent work combined. At the time of admission to the Plan, however, the program of study shall be arranged with provision for the remainder of the undergraduate course.

A faculty member of the school or department is the special adviser of the student. The student is supervised in his work through reports and discussions with the adviser, which later form the basis of the oral examination given at the end of the period of study.

Complete information regarding application and enrollment under the Independent Study Plan may be secured from the Committee on Independent Study.

## SCHOLARSHIP HONORS

High scholastic attainment is recognized by the University in the following ways: By awarding honors upon the completion of the Lower Division, to about the upper tenth of the class; by conferring the degree of Bachelor of Arts "with distinction" upon about one-tenth of the graduating class, "with great distinction" upon about one-twentieth of the graduating class.

## SCHOLARSHIP GRADES AND GRADE POINTS

In reporting the standing of students at the end of each quarter the following grades are used: A, B, C, D, passing grades, corresponding in a general way to the terms, "excellent," "good," "fair," "barely passed"; + passed (without defining grade); ± conditioned; (—) failed. In grading classes, A is considered as normally applicable to not more than 15 per cent, B and C to 35 per cent each, and D to 15 per cent of the students of passing grade. (This distribution of grades is advisory, and is understood to admit of a certain degree of flexibility in the handling of small or advanced classes.)

Grade points are assigned to units of credit according to the quality of the work done, as follows: Units passed with a grade of A are given four grade points each; with a grade of B, three grade points each; with a grade of C, or +, two grade points each; with a grade of D, one grade point each. For work marked "conditioned" or "failed," no grade points are given. A condition when removed counts only one grade point per unit, no matter what the final passing grade may be. (Advanced credit for work in other institutions counts two grade points for each unit of credit.)

### CONDITIONS AND INCOMPLETES

A student conditioned or reported incomplete in any subject must remove the deficiency within one calendar year (interpreted as the succeeding four quarters of actual attendance), or the work will be considered a failure.

A deficiency due to failure to take or pass a written (final) examination is removed by passing a similar test on the same work. This may be done by taking a regular class examination in the course if repeated in time, or a special written examination to be held at any time after the third week of any quarter. A student is entitled to one examination within the year, either regular or special.

Where deficiencies are due to failure to take or pass an oral examination, the time for holding a new oral examination to remove the condition or incomplete is determined by the instructor concerned. Compliance with the regulations for written examinations, so far as practicable, is required.

Deficiencies due to other causes may be removed by any work or test satisfactory to the department concerned.

*Only one examination to remove a condition is permitted.* If an examination to remove an incomplete results in a condition, but one examination is allowed to remove it. Instructors will report grades on all such examinations to the Registrar. Any deviation from these regulations requires the approval of the Committee on Scholarship.

### SCHOLARSHIP REPORTS AND NOTICES

At the end of the quarter each department is notified of all serious deficiencies in scholarship affecting students whose major work is in that department.

When a student is reported as seriously delinquent in scholarship, the fact is communicated to his parent or guardian.

### PROBATION AND DISQUALIFICATION

Standard work is obtaining fifteen units, with twice as many grade points as registered units, per quarter. This standard applies to each quarter and also as an average standard to be maintained on the entire record of the student.

At the end of any quarter in the University a student who fails to obtain twenty-two grade points is placed on probation.

At the end of the first or second quarter of residence, a student is considered as failing in his studies, and is disqualified from further attendance at the University, if he does not obtain ten grade points.

At the end of any quarter subsequent to the first or second of residence, a student is disqualified from further attendance at the University if he does not obtain fifteen grade points.

At the end of the second and every subsequent quarter the student's entire accomplishment is compared with what would have been obtained had he

done standard work. If he is above, at, or even slightly below standard, his scholarship standing is considered normal. But if his deficiency becomes considerable the result is probation, and in serious cases disqualification.

Application for reinstatement is not considered until the end of three quarters after disqualification. Reinstatement is granted only upon satisfactory evidence that the student has employed the period of absence from the University usefully, either in attendance at another educational institution or in some gainful occupation. Work in another institution must reach an average quality halfway between passing and one hundred; or, if the institution is a member of the Association of American Universities, one-third above passing. Work outside of a college or university must amount to at least seven months, and must show diligence, ability, and maturity of purpose.

A student who incurs a second disqualification is not eligible for reinstatement.

### LEAVE OF ABSENCE IN CASE OF DELINQUENT SCHOLARSHIP

Leave of absence will not generally be granted without the approval of the Committee on Scholarship, unless applied for at least four weeks before the end of the quarter.

### FROM SPECIAL TO REGULAR STANDING

Special students may be entered in regular standing on passing examinations in the required number of entrance subjects, provided such examinations are passed not later than two years after matriculation. (Entrance examinations are given in June by the College Entrance Examination Board; in September by the University, using the comprehensive question papers prepared by the Board.) In place of entrance examinations, university work to the amount of seven units for each entrance unit may be offered in university subjects which are also included in the entrance group. In case the student has met all Lower Division requirements, a request for change from special to regular standing involving a program leading to the Bachelor's degree may be granted without an arbitrary number of additional hours for graduation.

### UNIVERSITY CREDIT FOR EXTRA ENTRANCE SUBJECTS

High-school subjects offered in excess of the fifteen units required for undergraduate standing may be credited toward graduation, with a maximum of seven university units for one entrance unit, under the following conditions: (1) The subject must anticipate a course or courses given in the University (e.g., advanced mathematics, the laboratory part of elementary chemistry, or a foreign language); (2) the student, during his first six quarters in the University, must either pass the regular quarterly examination in the corresponding course, or else complete advanced courses in the University in the same subject with a grade not lower than B. Additional high-school units earned after matriculation may be offered only by special students and for the purpose of making up entrance deficiencies.

### UNIVERSITY CREDIT FOR SPECIAL COURSES

Matriculated students on leave of absence may take work in other universities, usually without any restrictions other than those imposed by the institution in question.

Work of a special character taken outside of regularly scheduled classes,

*in absentia* or during vacation periods, may be credited under the following conditions: (1) The work must be acceptable as part of the major requirements for the degree of Bachelor of Arts in the department whose courses it parallels or supplements, must be given necessary supervision and direction by such department and subjected to tests equivalent to those in regularly scheduled courses, and must be approved by the major department and by the Committee on Admission and Advanced Standing; (2) such work may not be offered by students whose general scholarship record is unsatisfactory, or for covering deficiencies due to poor scholarship; (3) not more than forty-five units may be credited toward graduation for such special courses.

Ordinarily the last quarter's work of every candidate for a degree must be taken in this University; but in special cases, students who have obtained at least one hundred and thirty-five units in resident work, and who have completed all major department requirements, may be exempted from this regulation and permitted to complete the required number of units under the provisions noted above.

## ADVANCED CREDIT

A student from an institution of equivalent rank may expect to receive the same standing relative to graduation as at the former institution, but not to exceed three years' advanced credit (one hundred and thirty-five unit hours toward graduation), and not without consideration of differences in the standard of entrance preparation and degree requirements. Every candidate must present a complete certified transcript of his college record, including entrance credit, and a letter of honorable dismissal.

Credits from recognized junior colleges are evaluated in terms of the amount of work completed, and the extent to which standard Lower Division requirements have been fulfilled. The maximum allowance for work in junior colleges is two years of university credit (ninety quarter units). Records involving work both in junior colleges and in accredited degree-granting institutions are given individual consideration and adjustment.

Recommended graduates of approved State Normal Schools, where the normal training has been preceded by a full four-year high-school course, or where high-school and normal-school courses together cover six years of work, may ordinarily be granted advanced credit of sixty-seven units. In the case of students from teachers' colleges which offer more than the two-year normal training, or which include junior college curricula, additional credit may be allowed if justified by the nature and amount of work completed.

In general, advanced standing for work done before matriculation will be given only when certified as having been completed in some institution of recognized collegiate rank, except as provided above for extra entrance units, or, in particular cases, to recommended graduates of approved State Normal Schools. But in special cases permission may be given by the Faculty to receive credit on examination for work equivalent to regular university courses. Application for such examinations, with satisfactory evidence of the work accomplished, must be presented to the Committee on Advanced Standing. Applications for advanced standing on the basis of work done before entering the University must be made within two years after matriculation.

## LEAVE OF ABSENCE

A student desiring to leave the University for a brief time should apply to the Committee on Registration. If leave of absence is desired on account of

sickness, the petition must be indorsed by the medical adviser. During the last four weeks of the quarter, no petition will be granted except upon approval of the Committee on Scholarship. A leave of absence is merely a justification of the absence and not a relief from the work that has been missed, and is usually necessary only in case of interrupted work; a student in good standing absent one or more quarters may re-enter at the beginning of any quarter without formal petition.

## HONORABLE DISMISSAL

An honorable dismissal means that the student is permitted voluntarily to withdraw from the University and is commended to the favorable consideration of any institution he may wish to enter. An honorable dismissal does not carry any implication as to scholarship and may be granted upon written application to any student not under discipline for misconduct.

# DEGREES AND TEACHING CREDENTIALS

## DEGREES

Candidates may be presented for graduation in January, April, June, and October.

No degree will be conferred upon any person who has not spent at least three quarters in resident study at the University. No honorary degrees are given.

### LOWER DIVISION REQUIREMENTS

The Lower Division consists of the first and second years of the University curriculum. Its object is to introduce the student to fundamental fields of human interest, and to this end it requires the completion of certain studies during the first two years. To the students enrolled in the Lower Division the members of the Committee on Lower Division Administration stand in the same relation as that occupied by departmental advisers toward their major students.

Under the supervision of the Committee on Lower Division Administration, the work of the first two years is divided into three groups. Every student is required to take at least *nine units* in each of these groups each year. The requirements are as follows:

*Group I.*—Language and literature (English and foreign). Formative art (including graphic art and drawing courses in the Engineering Departments).

*a*) Fifteen units (two high-school years) of each of two foreign languages, or twenty-two units (three high-school years) of one foreign language. (If this amount has been done in high school, the Lower Division does not require additional work.)

*b*) English A during the first year, provided the student has failed to pass the matriculation test in English.

*c*) Six units of English composition (English 2*a* and 2*b*) during the second year.

*d*) Electives to make up the required total of eighteen units (nine units each year) of languages and literature, if the above requirements have not totaled that amount.

*Group II.*—Natural sciences, mathematics (applied mathematics, biology, botany, chemistry, engineering, geology, logic, mathematics, military science, mining and metallurgy, physics, psychology, zoölogy, and entomology).

*a*) Nine units of biological science, physics, or chemistry during the first year.

(1) Biological science for those who have completed a high-school year of physics or chemistry only.

(2) Physics or chemistry for those who have completed a high-school year of biological science only.

(3) Biological science and physics or chemistry (a total of eighteen units) for those who have completed neither a biological science nor a physical science in high school.

*b*) Electives to make up the total of eighteen units (nine units each year) in the group.

*Group III.*—Social sciences (history, political science, economics, philosophy, and education).

*a*) Twelve units of citizenship in the first year.

*b*) Nine units of history in the second year.

(1) Choice of American or European history for those who have had both American and general history in high school.

(2) American history (4, 5, 6) for those who have had only general history in high school.

(3) European history (1, 2, 3) for those who have had only American history in high school.

(4) Both European and American history (a total of eighteen units) for those who have had neither in high school.

Students transferring from other institutions with advanced standing will be relieved from such of the requirements of the Lower Division as, in the judgment of the Committee on Lower Division Administration, they have substantially completed elsewhere. Such students should consult the Lower Division office.

The requirements of the Lower Division may be anticipated to some extent by the proper choice of subjects presented for entrance credit. These may well include: three units in one foreign language or two units in each of two foreign languages, one unit in a biological science, one unit in physics or chemistry, and two units in history. Of the latter, one unit should be in United States history and one unit in Ancient, European, or English history. This is especially to be recommended when an engineering course has been definitely chosen, in which case trigonometry should also be included.

Most of the science departments in the University, including the School of Medicine, require a reading knowledge of French or German for graduation, and German is required for all advanced degrees in the Chemistry Department. It is advantageous to begin these languages before matriculation.

All undergraduates enrolled in the Lower Division, with the exception of those registered in the Military Department, are required to devote to physical training three schedule hours per week, for a maximum of six quarters.

### MAJOR DEPARTMENT REQUIREMENTS

The selection of a major subject will be made ordinarily at the end of the second year, upon completion of the requirements of the Lower Division. The Lower Division student may, however, at the beginning of any quarter designate the particular department in which he expects later to do his major work, and will then be directed to the department for consultation and advice regarding electives before making up his study-list.

At the beginning of the junior year, and upon completion of the Lower Division requirements, the student selects as a major subject the work of some one department. The major department has the authority to prescribe not more than sixty units in the major subject (exclusive of elementary courses in the major department which may be offered for entrance). The major department shall also recommend such other courses as may be considered desirable, and shall exercise an advisory supervision over the student's curriculum from quarter to quarter. It shall be considered a

general principle of University policy, to be departed from only in exceptional cases, that at least ninety of the one hundred and eighty units required for the degree be taken outside of the major department.

In applied science the major department may prescribe as much of the entire one hundred and eighty units as it shall deem essential to the technical or professional requirements of the major subject.

Within these limitations the work in all departments is elective, and the student may freely choose any course which his previous studies have prepared him to undertake.

(A student in regular undergraduate standing who does not intend to become a candidate for the degree of Bachelor of Arts may choose, with the approval of the Lower Division Committee, or of the Major Department, any course in the University which his previous training has prepared him to undertake.)

### BACHELOR OF ARTS

The degree of Bachelor of Arts (A.B.) is conferred upon candidates who, in addition to fulfilling the following requirements, have applied in advance for graduation:

1. The completion of one hundred and eighty (quarter) units of university work, including the required Lower Division courses, together with the required physical or military training. (A special student who has completed two hundred and twenty-five units of university work, including all Lower Division and major requirements, and whose general university record is deemed proof of superior scholarship, may become a candidate for graduation on approval of the Committee on Admission and Advanced Standing; but ordinarily petitions to this end will not be considered by the Committee until after the student has completed one hundred and eighty units of university work.)

2. The acquirement of twice as many grade points as there are units registered on the candidate's record card.

3. The completion of the major subject requirements as prescribed by the major department.

The recommendation of the major department is necessary to graduation.

Forty-five units constitute a normal year's work (see p. 160); but the ordinary class divisions (freshman, sophomore, junior, senior) are not recognized by the University. The degree is conferred whenever the requirements are met, without regard to the time spent, except that at least forty-five units (including, except in special cases, the last fifteen) must be completed in this University.

If graduates of other universities desire to become candidates for the baccalaureate degree, the question of units required for graduation may be waived, upon approval of the Committee on Admission and Advanced Standing, and the degree conferred on the satisfactory completion of not less than forty-five units of university work and the fulfillment of all major and minor requirements.

As a recognition of high scholastic attainment the Bachelor's degree may be granted "with distinction" or "with great distinction."

### MASTER OF ARTS

The degree of Master of Arts (A.M.) is conferred on recommendation to the Academic Council by the Committee on Graduate Study, upon the satis-

factory completion of one academic year of graduate work at this University, the presentation of an approved thesis, and the passing of such general or final examinations as may be set by the school or department.

For admission to candidacy a Bachelor's degree from this University, or evidence of equivalent training, is required. In no case will the degree be granted unless the student has been registered for three quarters after completing the requirements for the Bachelor's degree. A longer period of residence will be necessary for students who are inadequately prepared or who devote less than the normal amount of time to their studies.

Admission to candidacy is granted by the Committee on Graduate Study on the basis of an application, approved in writing by the school or department in which the candidate proposes to take the degree, and filed with the Registrar not later than the fourth week of the second quarter of residence. This application should include the subject of the proposed thesis and a program of study approved by the school or department. Applications once submitted must be kept on file and may not be withdrawn even if substitutes are filed and accepted. At least two-thirds of a year's work must be devoted to advanced or graduate study in the major subject or in closely allied subjects. Work may be done in connection with regular courses, or, as research, independently of them.

A thesis presented for the degree of Master of Arts should show that the candidate has ability to do independent thinking. A copy of the thesis, bearing the approval of the instructor under whose supervision it was prepared, must be submitted to the Committee on Graduate Study by the date on which instruction closes for the quarter in which the degree is to be conferred. This copy shall be the original, not a carbon copy, typed on paper of standard size and weight, with a title page of the form prescribed by the Committee, and suitably bound. The thesis upon acceptance will be placed in the University Library.

### MASTER OF BUSINESS ADMINISTRATION

The degree of Master of Business Administration (M.B.A.) will be conferred, upon the recommendation of the Committee on Graduate Study, when the student has satisfied the requirements laid down by the faculty of the Graduate School of Business.

### ENGINEER

*Admission to candidacy.*—Admission to candidacy for the degree of Engineer is granted by the University Committee on Graduate Study to the holder of a Bachelor's degree from this University, or its equivalent, on the basis of an application (1) made in quadruplicate on the blank provided by the Registrar's Office, (2) setting forth the program of study and the subject of the thesis, (3) formally approved by the student's major department, (4) formally approved by the School of Engineering, and (5) filed with the Registrar not later than the fourth week of the quarter preceding that in which the degree is to be granted.

Applications once submitted must be kept on file and may not be withdrawn even if substitutes are filed and accepted.

*Residence.*—Six quarters in residence are required for the degree of Engineer. A longer period of residence will be necessary for candidates who are inadequately prepared or who devote less than the normal propor-

tion of time to their studies. The residence requirement may be waived in part in exceptional cases by the University Committee on Graduate Study upon recommendation of the department and approval of the School of Engineering.

*Program of study.*—The program of study must satisfy the student's department and include ninety units of which at least sixty units must be devoted to advanced or graduate study in the major subject or intimately allied subjects.

*Approval of application.*—The student should present in quadruplicate his application for admission to candidacy, made as directed under (1) and (2) above, to his major department.

The department will approve the application upon satisfactory evidence that the student is adequately prepared to complete the accepted program of study and that he is likely to complete the program within the scheduled time and in a creditable manner.

The department will transmit each approved application for admission to candidacy for the degree of Engineer through the prescribed channel to the University Committee on Graduate Study.

*Thesis.*—A copy of the thesis, bearing the approval of the instructor under whose supervision it was prepared, must be submitted to the University Committee on Graduate Study by the date on which instruction closes for the quarter in which the degree is to be conferred. This copy shall be the original, not a carbon copy, typed on paper of standard size and weight, with a title page of the form prescribed by the University Committee on Graduate Study, and suitably bound. The department may require a second copy of the thesis for the department files. The thesis upon acceptance will be placed in the University Library.

*Examinations.*—Final or general examinations of the candidate may be prescribed by the School or department.

*Recommendation.*—Upon the satisfactory completion of the foregoing requirements and the receipt of the written recommendation of the department bearing the written approval of the School, the University Committee on Graduate Study will recommend that the University confer upon the candidate the degree of Engineer in the department and subdivision of engineering in which his thesis lies.

## DOCTOR OF EDUCATION

The degree of Doctor of Education (Ed.D.) is conferred upon recommendation of the Faculty of the School of Education and the Committee on Graduate Study, on students who complete, in a satisfactory manner, the program of advanced study in Education as prescribed by the Faculty of the School of Education, submit a satisfactory dissertation, and give evidence as to broad and substantial scholarship in the selected fields. This degree is of two types: (*A*) the Administrator type, and (*B*) the Master-Teacher type. The minimum time requirement, including at least three consecutive quarters of residence at the University, is the same for each type, and the general requirements for either type of degree are intended to be substantially as difficult as those for the Ph.D. degree, but somewhat different in type.

At least four weeks before the last day of instruction in the quarter in which the degree is to be conferred, the candidate must deposit with the School of Education three typewritten copies of the dissertation, bound ac-

cording to University regulation; and file at the Registrar's Office an approved abstract of the dissertation, 500 to 2,000 words in length, and a brief biography of the candidate. A deposit of $25 will be required to cover cost of publishing the abstract in the annual volume issued by the University.

(For complete information regarding requirements for the Ed.D. degree, consult the *Announcement of the School of Education.*)

### BACHELOR OF LAWS

The degree of Bachelor of Laws (LL.B.) is conferred upon students who have received the degree of Bachelor of Arts, or its equivalent, from this University or from some other institution of recognized collegiate rank, and who have thereafter satisfactorily completed courses in Law aggregating 117 units, including therein all first-year professional courses, and who have devoted nine full quarters of time to the study of Law and have otherwise satisfied the requirements of the University and of the School of Law.

### JURIS DOCTOR

To be admitted to candidacy for the degree of Juris Doctor a student must be eligible for admission to the School of Law in regular standing, must have completed the work for the first degree in law at this University, or in some other university law school of recognized standing in which work for the first degree in law covers a period of not less than six years of combined academic and law work, and must be approved for candidacy by action of the Law Faculty. For this purpose there must be furnished a complete and official transcript of the academic and professional work of the applicant, showing in detail courses pursued, grades received, and the degrees conferred. This transcript should be sent by the proper official directly to the Dean of the School of Law. Students who have met the foregoing requirements and who have completed with a high average and otherwise to the satisfaction of the Law Faculty thirty-two units of work in law courses not previously taken, including therein at least eight units to be selected from courses numbered 280 to 286, as set forth in the announcement of the School of Law, and who have in addition submitted an acceptable thesis on a legal problem approved by the Faculty, will be granted the degree of Juris Doctor (J.D.).

### DOCTOR OF MEDICINE

The degree of Doctor of Medicine (M.D.) is conferred upon recommendation of the Committee on Graduate Study, on students who complete the five years' curriculum in Medicine (which includes the interne year), based upon the three years' pre-medical course as laid down by the University.

### DOCTOR OF PHILOSOPHY

*General Regulations.*—The degree of Doctor of Philosophy (Ph.D.) is conferred on recommendation to the Academic Council by the Committee on Graduate Study, upon evidence of substantial scholarship, high attainment in a particular field of knowledge, and ability to do independent investigation and present the results of such research. Admission to candidacy requires a Bachelor's degree from this University, or evidence of equivalent training, and a reading knowledge of French and German. After admission to candi-

dacy each candidate must pass an oral examination, present an acceptable dissertation, and, in certain cases, pass a second oral examination, before the Committee on Graduate Study will recommend the candidate for the degree. A minimum of three years (nine quarters) of graduate study satisfactorily completed is required of candidates; at least one of these years, ordinarily the last, must be spent as a resident student at Stanford University. It is expected that candidates for the degree will be registered in the quarter in which the oral examination is given and in which the degree is conferred.

All applications or petitions to the Committee on Graduate Study must be submitted to the school or department concerned for approval before being filed with the Registrar. Communications should be addressed to the Dean of Graduate Study, Registrar's Office, Stanford University, California.

*Admission to Candidacy.*—Admission to candidacy is granted by the Committee on Graduate Study on the basis of an application approved in writing by the school or departments in which the candidate proposes to take the degree and complete major and minor requirements. Each prospective candidate should consult the executive head of the school or department concerned, and such other faculty members as he may choose, in regard to his qualifications and program of study. Application for candidacy should be made on a blank obtained at the Registrar's Office and filed with the Registrar, ordinarily during the second year of graduate study, or not later than the fourth week of the last academic year of candidacy. Applications once submitted must be kept on file and may not be withdrawn even if substitutes are filed and accepted. The application should name a major subject and one or two minor subjects, and should contain a program of study and state the subject of the dissertation. Approximately two-thirds of the proposed program of study should be devoted to the major, but in exceptional cases one or both minors may be waived by the Committee on Graduate Study, upon recommendation of the school or department concerned.

*Foreign Language Requirement.*—Applications for admission to candidacy must be accompanied by certificates stating that the student possesses a reading knowledge of French and German. In special cases, with the approval of the school or department, and the Committee on Graduate Study, another foreign language may be substituted for French or German when such substitution is justified by the literature of the applicant's general field of study. The certificates shall be issued by examiners designated by the Committee on Graduate Study.

*Oral Examination.*—When a candidate has shown special ability in his field of study and has proved his capacity for independent investigation, to the satisfaction of the school or department concerned, he may arrange through the Dean of Graduate Study for an oral examination. The purpose of the examination is to test the candidate's command of his major and minor fields and to confirm his fitness for scholarly pursuits. This examination shall be held not later than the eighth week of the last (academic) year of candidacy and should be about three hours in length. The examining committee shall include (1) the Dean of Graduate Study or his delegate presiding, (2) the professors in the school in which the major subject lies, (3) the professor or professors in charge of the minor subject or subjects if lying in another school. The schools are Biological Sciences, Engineering, Hygiene and Physical Education for Men, Letters, Social Sciences, and Physical Sciences. The Department of Philosophy, the School of Education, the Food

Research Institute, or the Graduate School of Business may for this purpose be designated by the Dean of Graduate Study as a temporary member of any of the schools. Any member of the Academic Council may attend and take part in the examination. The candidate may be recommended to the Committee on Graduate Study for final acceptance only upon the favorable vote of three-fourths of the members of the Academic Council present and voting.

*Dissertation.*—Recommendation for the degree shall be made only after the acceptance of a dissertation, which must be a contribution to knowledge and the result of independent work, expressed in satisfactory form. At least four weeks before the last day of instruction in the quarter in which the degree is to be conferred, the candidate must deposit at the Registrar's Office (1) three typewritten or printed copies of the dissertation, (2) an abstract of its contents, and (3) a brief biography, all approved by the school or department. Upon the deposit of the dissertation, the Dean of Graduate Study shall appoint a special committee of three whose duty it shall be to read the dissertation, conferring with the candidate if it so desires, and to report to the Dean of Graduate Study whether or not in its opinion the dissertation is of a scope and quality acceptable in fulfillment of this requirement for the degree.

The special committee on the dissertation may at its discretion accompany its report with a recommendation that the candidate be required to pass a second oral examination of specified scope. This examination shall be given by a committee consisting of the Dean of Graduate Study, or his delegate presiding, a professor selected by the school or by each of the major and minor departments, and additional members to a total of five, appointed by the Dean of Graduate Study. A majority vote shall be necessary for recommending the candidate to the Committee on Graduate Study for the degree.

*Dissertation, Biography, Abstract, and Deposit.*—Directions regarding the form of the dissertation, title-page, abstract, and biography may be obtained at the Registrar's Office. After its final acceptance, the Registrar shall order the three copies of the dissertation bound at the expense of the candidate. These copies shall be made available for loan from the University Library. The abstract, 500 to 2,000 words in length, will form a part of a volume issued annually by the University. Each candidate shall make a deposit (approximately $35) at the Comptroller's Office, on or before the last day of instruction in the last quarter of candidacy, to cover the cost of binding his dissertation and his share of the cost of publishing the volume of abstracts.

## ADVANCED DEGREES IN THE SCHOOL OF MEDICINE

The departments of the School of Medicine are considered as equivalent to other departments of the University in respect to candidacy and requirements for the degrees of Master of Arts and Doctor of Philosophy, and all the foregoing regulations apply to these departments and department faculties as to departments and department faculties at the University, with the following modifications and limitations:

1. Candidates for these degrees must have received the degree of Bachelor of Arts at Stanford, or an equivalent training elsewhere, and must have the approval of the department faculty in which the degree is sought. The degree of Doctor of Medicine will ordinarily be required as a prerequisite for those wishing to do clinical work.

2. Time spent in candidacy for the degree of Master of Arts or Doctor of Philosophy will not be counted toward the degree of Doctor of Medicine.

## TEACHING CREDENTIALS

This University acts as agent for the State Board of Education of California in the matter of credentials for teaching, and also recommends to the proper educational authorities in other states, as is indicated in the pages which follow.

All students who intend to prepare for teaching are urged to confer with the Secretary of the School of Education at the beginning of their junior year regarding lines of preparation, desirable combinations, requirements, and similar matters, so that the most advantageous grouping of courses and the most economical arrangements of work and time may be made.

As a physical and mental health certificate of an applicant is now required from the University authorities by the state, all students who intend to prepare for teaching are also urged to confer, early in their course, with the Medical Adviser of Women, Dr. Bertha Stuart Dyment, or the Medical Adviser of Men, Dr. Thomas A. Storey. All prospective candidates for credentials will then be advised regarding physical and mental conditions which might later, if uncorrected, prevent the granting of the teaching credential.

A candidate for any type of credential at Stanford University must complete at least one full year of residence. The School of Education has ruled that all work done in graduate standing must be of C grade or above, to be counted for credential requirements.

Teachers' certificates are issued by County, and City and County Boards of Education under the provisions of Section 1519, subdivision 5 (*a*), Section 1775, subdivision 1 (*a*), and Section 1792 of the Political Code of California. The State Board of Education of California, in accordance with the law, is empowered to issue teaching credentials, valid throughout the state, upon which County, and City and County Boards of Education may in turn issue certificates. This University, through its School of Education, has been empowered to grant credentials to students who meet requirements laid down by the State Board of Education, of nine grades: (I) Elementary (under certain circumstances), (II) Junior High School, (III) Secondary, (IV) Junior College, (V) Special, (VI) School Administration, (VII) School Supervision, (VIII) Educational Research, and (IX) Preliminary Credentials, the last being valid only for cadet teaching in connection with Education 202.

Certificates are granted on the basis of the School of Education Credentials, after these have been countersigned by the proper state authority, and are valid for teaching as described below. California credentials may be obtained under the following conditions:

### I. THE ELEMENTARY SCHOOL CREDENTIAL

(Valid for teaching in the elementary schools of the state.)

An applicant for the Elementary School Credential must present the following:

1. A Bachelor's degree from this University.
2. A certificate that the applicant is physically and mentally fit to teach.
3. Completion of 36 quarter units of work in Education, including:
   - *a*) Introduction to the Study of Education, 4 units (Course 130)
   - *b*) Methods and Management of Instruction, 2 units (Course 201)
   - *c*) Practice Teaching, 6 units (Course 202)
   - *d*) Principles of Elementary Education, 3 units (Course 193)

4. At least a year of residence work at one of the state teachers colleges where the proper normal method courses and training may be secured.*
5. A course in the Constitution of the United States (History 175, or an acceptable substitute taken in a teacher-training institution in the state of California). This requirement may be covered by taking the examination given by the county superintendents throughout the state.

## II. THE JUNIOR HIGH SCHOOL CREDENTIAL

(Valid for teaching in any junior high school.)

An applicant for a Junior High School Credential must present the following:

1. A Bachelor's degree from this University.
2. A certificate that the applicant is physically and mentally fit to teach.
3. Completion of 27 quarter units of work in Education, including:
   - *a*) Introduction to the Study of Education, 4 units (Course 130)
   - *b*) Methods and Management of Instruction, 2 units (Course 201)
   - *c*) Practice Teaching, 6 units (Course 202)
   - *d*) Principles of Secondary Education, 3 units (Course 195)
   - *e*) Teachers' Courses in both the major and minor subjects, if given in the University
   - *f*) Other elective courses to complete the required number of units

   It is highly desirable that the requirements in Education for the Elementary Credential be completed by every candidate for the Junior High School Credential, that the credential may read "including Elementary," so that the candidate may teach in the elementary grades as well.
4. Completion of the required work in at least one Teaching-Major and one Teaching-Minor, in subjects taught in high schools. If the Major subject is in a field not commonly accepted for high school graduation, such as Philosophy, Education, Psychology, etc., two Minors will be required.
5. A course in the Constitution of the United States (History 175, 3 units, or an acceptable substitute taken in a teacher-training institution in the state of California). This requirement may be covered by taking the examination given by the county superintendents throughout the state.

## III. THE SECONDARY SCHOOL CREDENTIAL

(Valid for teaching in any elementary, junior, and senior high school in the state; and, if the holder has secured the A.M., Ph.D., or Ed.D. degrees, in the junior college.)

In all cases the candidates must hold a Bachelor's degree from some institution requiring eight years of high school and college work for such degree; must satisfactorily complete the required work in at least one Teaching-Major and one Teaching-Minor, with the exception that where the Major is in Education or Psychology, or in any field not commonly accepted for high school graduation, two Minors will be required; and in addition must complete in this University a full year of graduate study.

The School of Education has ruled that all work done in graduate standing must be of C grade or above, to be counted for the credential.

An applicant for a Secondary Credential must present the following:

* The School of Education does not prepare candidates for the Elementary Credential, and such training must be secured in a state teachers college before coming to Stanford, or by taking a leave for one year and attending such an institution. Credit for such work may be obtained if arranged for in advance.

1. A certificate that the applicant is physically and mentally fit to teach.
2. A course in the Constitution of the United States (History 175, or acceptable substitute taken in a teacher-training institution in the state of California). This requirement may be covered by taking the examination given by the county superintendents throughout the state.
3. A Bachelor's degree from some institution requiring eight years of high school and college work to secure the degree.
4. One full year of graduate work of not less than 39 quarter units of Upper Division or graduate courses, in an institution, or institutions, approved for graduate work by the State Department of Education, not including extension and correspondence work. This graduate work must include at least a total of nine quarter units in the candidate's teaching subjects, and at least nine quarter units in Education courses. The School of Education of Stanford University expects all candidates to put in at least three quarters of work in the University in order to secure the credential.
5. A minimum of 27 quarter units in Education courses, including:
   *a*) Introduction to the Study of Education, 4 units (Course 130)
   *b*) Principles of Secondary Education, 3 units (Course 195)
   *c*) Methods and Management, 2 units (Course 201)
   *d*) Practice Teaching, 6 units (Course 202). This may be waived in the case of candidates who have had one or more years of successful teaching experience
   *e*) Teachers' Courses in both Major and Minor subjects, if given in the University
6. Completion of the required work in at least one Teaching-Major and one Teaching-Minor, in subjects taught in high schools. If the Major subject is in a field not commonly accepted for high school graduation, such as Philosophy, Education, Psychology, etc., two Minors will be required.

Candidates who have taught or been engaged in teaching or school supervision in this or any other state, and who present credentials showing that they have done so for at least nine months with reasonable success, may be excused from 6 of the 27 units of Education represented by Practice Teaching (Education 202). All students desiring such exemption must make application on Form B, to be obtained at the office of the Secretary of the School of Education, Room 52.

### IV. THE JUNIOR COLLEGE CREDENTIAL

(Valid only for teaching in the two years of the junior college.)

An applicant for the Junior College Credential must present the following:

1. A certificate that the applicant is physically and mentally fit to teach.
2. A course in the Constitution of the United States (History 175, or acceptable substitute taken in a teacher-training institution of the state of California). This requirement may be covered by taking the examination given by the county superintendents throughout the state.
3. A Master's or Doctor's degree granted by the recommending institution or other institution approved by the State Board of Education. One year of graduate work must have been done in the recommending institution.
4. Two Teaching-Majors, or one Major and two Minors.
5. At least 15 quarter units of work in Education (of which 9 must be taken in graduate standing) including:

*a*) Principles of Junior College Education, 3 units (Course 285). In certain cases, Principles of Secondary Education may be substituted
*b*) In the case of candidates who have not had teaching experience, 6 quarter units of Practice Teaching (Course 202) must be taken in addition, and 2 of the 15 units in Education must be Methods and Management (Course 201)

### V. SPECIAL SECONDARY CREDENTIALS

(Valid for teaching the subject, or subjects, named upon the credential in the schools of California.)

Special Secondary Credentials are granted in the fields of Art; Commerce; Health and Development; Home-making; Industrial Education; Library Craft; Music, Band, Orchestra, or Chorus; Physical Education; Speech Arts; Vocational Education, Trade and Industrial Education, Agricultural Education.

The School of Education at Stanford University at present can prepare candidates only for the Special Credentials in Art, in Physical Education for Men, and in Speech Arts. Candidates interested in the other fields must secure proper preparation from some other accredited teacher-training institution.

[Applicants for Special Credentials in the fields listed above may secure additional information from the Secretary of the School of Education as to requirements in each field, other than Art, Physical Education for Men, or Speech Arts, described below.]

An applicant for a Special Credential must present the following:

1. A certificate that the candidate is physically and mentally fit to teach.
2. Completion of a four-year college course with a Bachelor's degree, including a minimum of 24 units of academic work, 36 to 75 units of training in the field listed upon the credential, and 22½ units in Education courses.

#### (A) Special Secondary Credential in Art

An applicant for a Secondary Credential in Art must present the following:

1. A certificate that the candidate is physically and mentally fit to teach.
2. A Bachelor's degree from a teacher-training institution approved by the California State Department of Education for training art teachers.
3. A minimum of 24 quarter units of academic work.
4. A minimum of 22½ quarter units of professional work in Education, including:
   *a*) Principles of Secondary Education, 3 units (Course 195)
   *b*) Practice Teaching, 6 units (Course 202)
   *c*) Methods and Management, 2 units (Course 201)
   *d*) Teacher's Course in Art, 3 units (Course 206)
   *e*) Introduction to the Study of Education, 4 units (Course 130)
5. A minimum of 75 quarter units of work in art, distributed approximately as follows:
   *a*) History, theory, and appreciation of art.....15 units
   *Graphic Art 5. The Art of House Design
   Graphic Art 6. Lectures on Renaissance and Modern Painters
   *Graphic Art 116. Interior Decoration

* Courses both in art theory and in design.

*b*) Representation .....15 units
Graphic Art 1. Still-life and Quad Sketching
Graphic Art 2. Free-hand Construction Drawing
Graphic Art 4. Perspective
Graphic Art 110. Illustration
*c*) Design .....15 units
Graphic Art 3. Design in Form and Color
Graphic Art 5. The Art of House Design
Graphic Art 116. Interior Decoration
*d*) Art Crafts ..... 6 units
Graphic Art 109. Handicraft: Metal Work
Graphic Art 112. Textiles
*e*) Electives, in above, or in special fields of art, such as House Design and Civic Art, Posters and Lettering, and Costume .....24 units
Total .....75 units

[Note.—Art Supervisors must hold both the art credential and supervision credential.]

(B) Special Secondary Credential in Physical Education

*Physical Education for Men.*—An applicant for a Secondary Credential in Physical Education for Men must present the following:

1. A certificate from the Men Students' Health Service at this University that he is physically and mentally fit to teach.
2. A Bachelor's degree from a teacher-training institution approved by the California State Department of Education for training teachers of Physical Education.
3. A minimum of 24 quarter units of academic work.
4. A minimum of 22½ quarter units of professional work in Education, including:
   *a*) Education 195, Principles of Secondary Education, 3 units.
   *b*) Education 202, Practice Teaching, 6 units.
   *c*) Education 201, Methods and Management, 2 units.
   *d*) Education 220, Methods Courses in Physical Education, 2 units (if given).
   *e*) Education 130, Introduction to the Study of Education, 4 units.
5. Satisfactory completion of the following basic courses:
   *a*) Zoölogy 1 and 2, 10 units. (Biology 1 and 2 may be substituted.)
   *b*) Anatomy 120, 5 units.
   *c*) Physiology 101 and 102, 10 units. (Completion of these 10 units will also satisfy item 6 *e* below.)
   *d*) Hygiene and Physical Education 150, 151, 152, 153, and 154, 12 units. (Completion of these five courses will satisfy also item 6 *h* below.)
   *e*) Psychology 51, 5 units.
6. A certification from the General Director of the School of Hygiene and Physical Education that the applicant has satisfactorily completed a minimum of 36 quarter units selected from at least seven of the following courses, in which number courses from *a*, *b*, *c*, and *e* must be included:
   *a*) Hygiene and Physical Education 160, Principles of Physical Education
   *b*) Hygiene and Physical Education 170 to 177, Technique of Teaching

Activities in Physical Education. In this group, Course 177 is required of all candidates

*c*) Hygiene and Physical Education 185, Administration of Physical Education
*d*) Applied Physiology (Physiology of Exercise) covered above under 5 *c*
*e*) Hygiene and Physical Education 1 to 69, Activities in Physical Education (at least 9 units or hours are required)
*f*) Hygiene and Physical Education 163, Community Recreation, The Nature and Function of Play
*g*) Hygiene and Physical Education 211, Physical Education Tests and Measurements
*h*) Health Education (covered above under 5 *d*)
*i*) Education 190, Growth and Development of the Child

### (C) Special Secondary Credential in Speech Arts

An applicant for a Secondary Credential in Speech Arts must present the following:

1. A certificate that he is physically and mentally fit to teach.
2. A Bachelor's degree from a teacher-training institution approved by the California State Department of Education for training teachers of Speech Arts.
3. A minimum of 24 quarter units of academic work, exclusive of courses in Education and Public Speaking.
4. A minimum of 22½ quarter units of professional work in Education, including:
   *a*) Principles of Secondary Education, 3 units (Course 195)
   *b*) Practice Teaching, 6 units (Course 202)
   *c*) Methods and Management, 2 units (Course 201)
   *d*) Methods course in Public Speaking, 2 units (Course 217)
   *e*) Introduction to the Study of Education, 4 units (Course 130)
5. A minimum of 60 quarter units of work in English and Public Speaking, distributed approximately as follows:
   *a*) Composition, 6 units
   *b*) Vocal Expression and Voice Training, 12 units
   *c*) Dramatics, 10 units
   *d*) Speech Making, Argumentation, and Debating, 14 units
   *e*) English Literature, 18 units

## VI. THE SCHOOL ADMINISTRATION CREDENTIAL

The School Administration Credential will be granted to the holders of a valid California Teacher's Certificate, or a California Life Diploma, of general elementary or secondary grade, who have had at least 17 months of successful experience in teaching, and who, *in addition* to all requirements for a regular teacher's certificate, have completed 22½ quarter units of additional work in Education, as given in the specific requirements listed below, and a minimum of one full year of work at Stanford University.

The School Administration Certificate authorizes the holder to administer public education and to engage in such supervision as may be properly included in the duties of a superintendent, deputy superintendent, assistant superintendent, principal, general supervisor, or head of a department offering

instruction in non-special subjects, such as English, Mathematics, Social Sciences, etc. Superintendents, deputy superintendents, assistant superintendents, principals of schools of more than five teachers (one of whom acts as principal), and vice-principals devoting full time to administrative duties will be required to hold the School Administration Certificate. The grade of the administration certificate is determined by the grade of teacher's certificate held, and since January 1, 1925, has been indicated on the credential. The grade of such credential may be raised without fee when the holder obtains a higher grade of general teacher's certificate.

Application for raising the grade of a School Administration Credential must be made to the State Commission on Credentials, accompanied by the administration credential and the teacher's certificate of higher grade.

The following courses have been prescribed by the State Board of Education as the ones that must be taken to meet the requirements for this credential. After the description of each course as prescribed, the course offered by this University that will satisfy the requirement is indicated.

1. At least 15 units to be selected from not less than four of the following courses (School Administration and Growth and Development of the Child required):
   - *a*) A course in the History of Education in the United States, which will present the problems of present-day education in the light of their historical development. (Course 180, 3 units.)
   - *b*) A course in Educational Tests and Measurements, which will show their use and give some training interpreting the results obtained. (Course 186, 4 units.)
   - *c*) A course in School Administration, dealing with the broad fundamental principles underlying public school administration. (Course 250, 251, or 258, 4 units.)
   - *d*) A course in the Growth and Development of the Child. (Course 190, 3 or 4 units.)
   - *e*) A course in the Philosophy of Education. (Course 133, 175, or 176, 4 or 5 units.)

2. At least 7½ additional quarter units, to be selected from the following courses:
   - *a*) Work of an Elementary-School Principal. (Course 254, 4 units.)
   - *b*) Administration of a High School. (Course 230, 3 units.)
   - *c*) The Organization and Supervision of Elementary Education. (Course 256 or 262, 4 units.)
   - *d*) The Supervision of Instruction. (Course 223, 1 unit; 256, 4 units; 310, 2 units.)
   - *e*) Statistical Methods. (Course 185, 4 units.)
   - *f*) School Surveys. (Course 265, 4 units.)
   - *g*) Rural Education. (Course 174, 3 units.)
   - *h*) The Elementary School Curriculum. (Course 231, 4 or 5 units.)
   - *i*) The High School Curriculum. (Course 231, 4 or 5 units.)
   - *j*) State and County School Administration. (Course 250, 4 or 5 units.)
   - *k*) City School Administration. (Course 251, 4 units; 258, 4 units.)
   - *l*) Schoolhouse Hygiene and Construction. (Course 269, 4 units.)
   - *m*) Methods in Mental Diagnosis. (Course 188, 5 units; 189, 4 units; 170, 3 units; 245, 4 units.)

*n*) The Organization or Administration of Vocational Education. (Course 234, 3 or 5 units.)

Under the rules of the State Board of Education, equivalents for any of the courses above, taken elsewhere, can be accepted only when they were completed in "a collegiate institution of standard grade."

[NOTE.—Persons now serving as administrators in schools of less than five teachers, or as supervisors giving less than half time to supervision will be permitted to substitute not less than six units of further work in administration and supervision subjects in lieu of actual experience for each long term renewal; with the understanding that as long as these administrators and supervisors serve in the same school system and are unable to obtain the experience required by law for life diplomas, the credentials may be renewed from time to time for five-year periods, regardless of changed conditions for new credentials.]

## VII. SCHOOL SUPERVISION CREDENTIAL

The School Supervision Certificate authorizes the holder to engage in school supervision, in accordance with the class of certificate held, viz.:

*Class A. General Supervision,* authorizes the supervision of all instruction within the grade of the Certificate.

*Class B. Special Supervision,* authorizing supervision in special field, such as music, art, physical education, etc.

*Class C. Departmental Supervision,* authorizing the supervision of departmental instruction in a junior college, high school, or junior high school.

*Class D. Supervision of Attendance and Child Welfare,* authorizing the holder to supervise attendance, take care of all attendance problems, serve as a co-ordinator between the school and home, and to adjust and administer social welfare.

Persons devoting at least half time to supervision will be required to hold the School Supervision Certificate. The grade of certificate is determined by the grade of teacher's certificate held in the subject or subjects to be supervised, and since January 1, 1925, has been indicated on the State Credential.

This credential will be granted to the holder of a valid California Teacher's Certificate, or a California Life Diploma, of any regular grade or special type, who has had at least 17 months of successful experience in teaching including the subjects he wishes to supervise; and who, *in addition* to all requirements for a regular or Special Teacher's Certificate, has completed school supervision subjects in accordance with the class specified, and has spent at least one year in residence at Stanford University.

The requirements for each class of supervision credential are as follows:

### CLASS A—GENERAL SUPERVISION

*a*) 15 quarter units selected from not less than four of the following courses (School Organization and Supervision, and Growth and Development of the Child required):

1. School Organization and Supervision. (Course 250, 251, or 256, 4 units; 310, 2 units.)
2. Growth and Development of the Child. (Course 190, 3 or 4 units.)
3. Philosophy of Education. (Course 133 or 175, 5 units.)
4. History of Education in the United States. (Course 180, 3 units.)
5. Educational Tests and Measurements. (Course 186, 4 units.)
6. The Curriculum. (Course 229, 3 units; 231, 4 or 5 units.)

*b*) 7½ quarter units selected from the following group:

1. Rural Education. (Course 174, 3 units.)
2. Educational Sociology or Social Aspects of Education. (Course 175, 4 or 5 units; or 176, 4 or 5 units.)
3. The Relation of Community Agencies to Public Education. (Course 300, 3 to 5 units.)
4. Problems of Supervision. (Course 256, 4 units; 262, 4 units; 310, 2 units.)
5. Modern Practice and Experiment in Education. (Course 229, 3 units.)
6. Methods in Mental Diagnosis. (Course 188, 5 units; 189, 4 units; 245, 4 units; 170, 3 units.)
7. Vocational Guidance. (Course 234, 3 or 5 units.)

[Note.—The candidate must also verify at least 9 quarter units in each of two subjects selected from the following: music, art, physical education, manual arts, commerce, homemaking subjects, and agriculture. These courses need not be in addition to courses presented for the teacher's certificate.]

### Class B—Special Supervision

*a*) 6 quarter units of work selected from at least two of the following courses (Growth and Development of the Child required):

1. Growth and Development of the Child. (Course 190, 3 or 4 units.)
2. Philosophy of Education. (Course 133 or 175, 4 or 5 units; or 176, 4 or 5 units.)
3. History of Education in the United States. (Course 180, 3 units.)
4. Social Value of the Special Field in which Supervision is to be done.

*b*) 9 quarter units of work selected from the following group (Organization, Objectives, and Supervision of Instruction in the Special Subject required):

1. Organization, Objectives, and Supervision of Instruction in Special Subject. (Special Teacher's Courses.)
2. Tests and Measurements in the Special Subject. (Course 186, 4 units.)
3. Problems of Supervision. (Course 262, 4 units; 310, 2 units.)
4. Vocational Guidance. (Course 234, 3 or 5 units.)

### Class C—Departmental Supervision

*a*) 7½ quarter units of work, including the following courses (Problems in the Organization and Supervision of a Department and Educational Measurements required):

1. Problems in the Organization and Supervision of a Department. (Course 254, 4 units.)
2. Organization and Supervision of Instruction. (Course 256 or 262, 4 units.)
3. Educational Measurements, including Tests in Special Field, if available. (Course 186, 4 units.)

[Note.—Holders of "C" Departmental Supervision Credentials may be granted the School Administration Credential upon completion of 15 quarter units of work in school administration subjects as outlined under group (1) of requirements for the Administration Credential.]

### Class D—Credential in Supervision of Attendance and Child Welfare

1. A valid California Certificate, Credential, or Life Diploma of elementary or secondary grade.
2. Two years of thoroughly satisfactory school experience.
3. A minimum of 22½ quarter units in Education courses relating to supervision of attendance and child welfare.

## VIII. EDUCATIONAL RESEARCH CREDENTIALS

### (I) Short-Term Research Director's Credential

[Valid for one year and may be renewed twice, on evidence as to successful practice or the completion of further requirements leading to a long-term credential.]

An applicant for the short-term Research Director's Credential must present the following:

1. A certificate that he is physically and mentally fit to engage in school work.
2. A Master's or a Doctor's degree in Education or Psychology, or related lines of work, and at least one full year of residence at Stanford University.
3. Evidence as to having complied with one of the following requirements:
   - *a*) Completion of all requirements for the general administration or general supervision credential.
   - *b*) Two years of successful experience as a full-time director, associate director, or assistant director of a bureau or department of educational research.
   - *c*) Satisfactory completion of a specific course or courses in an accredited teacher-training institution, in each of the following fields:
     - (1) Educational Statistics (Courses 185, 240, 241)
     - (2) Educational Tests and Measurements (Courses 186, 244)
     - (3) Mental Tests and Testing (Courses 188, 189, 234, 324)
   - *d*) Two years of full-time successful experience under capable direction in the fields listed under professional growth, below.

### (II) Long-Term Research Director's Credential

[Valid for five years, and may be renewed for five-year periods upon evidence of successful experience as director, associate director, or assistant director of a bureau or department of educational research for at least two full school years, or by professional growth as shown by continued study or by original contributions to the scientific literature of educational research.]

An applicant for a long-term Research Director's Credential must present the following:

1. A certificate that the applicant is physically and mentally fit to engage in school work.
2. A Master's or Doctor's degree in Education or Psychology, or in related lines of work, with a minimum of one and one-half years of full-time postgraduate work.
3. Completion of a specific course or courses in each of the following fields:
   - *a*) Educational Statistics (Courses 185, 240, 241)
   - *b*) Educational Tests and Measurements (Courses 186, 244)
   - *c*) Mental Tests and Testing (Courses 188, 189, 245, 324)

*d*) 6 quarter units of advanced work in each of three of the following fields:

(1) School Administration and Finance
(2) School Supervision
(3) Curriculum
(4) Individual Research

## IX. PRELIMINARY CREDENTIALS FOR PRACTICE TEACHING

Recommendations for Preliminary Special or Preliminary Regular Elementary, Junior High, or High School Teachers' Certificates, authorizing the holder to do cadet teaching, without salary, in any school, are also granted to those enrolled for Practice in Teaching, Education 202. Application for these is made through the Director of Practice Teaching, Professor Benjamin.

## APPLICATION FOR A TEACHING CREDENTIAL

When any student has spent the requisite time in study at this University, and has completed the prescribed program of studies in Majors and Minors for the High School Teacher's Recommendation; or the special course of study required by the School of Education and by the regulations of the state for an Elementary School, a Junior High School, a Junior College, or for the Administration, Supervision, or other Special Type of Teacher's Recommendation, such student must make application early in the last quarter of residence at the University for a credential of the type of certificate desired, and leave such application with the Secretary of the School of Education, in Room 52. Students who plan to complete requirements during the summer quarter must make application in May, that there may be no delay in receiving credentials before the opening of schools in the fall.

The credential desired is granted only after the application has been approved by the Committee on Credentials and Degrees of the School of Education, and is then forwarded for signature, to the Commission on Credentials of the State Board of Education, at Sacramento. Upon presentation of this credential to any County Superintendent of Schools in California a certificate will be issued. This procedure is made necessary by a requirement of the Constitution of California that the actual teacher's certificate can be granted only by the counties.

Application blanks for all types of credentials may be obtained from the Secretary of the School of Education, and must be returned to her when correctly filled out and signed by the recommending Major and Minor departments.

# COURSES OF INSTRUCTION

1930–31

[*The asterisk (*) indicates that the course is repeated for the quarter named; otherwise courses announced for two quarters or more may be interpreted as continuing from one quarter to the next. Courses numbered from 1 to 99 inclusive are primarily for Lower Division undergraduates; from 100 to 199 inclusive, for Upper Division undergraduates; from 200 to 299 inclusive, for graduate students. The enrollment in the various courses is printed in italics at the end of the descriptive matter.*]

## SCHOOL OF BIOLOGICAL SCIENCES

Carl Lucas Alsberg, Charles Haskell Danforth, James Murray Luck, Ernest Gale Martin (*Chairman*), Hubert Gregory Schenck, Edwin William Schultz, Gilbert Morgan Smith, John Otterbein Snyder, Calvin Perry Stone, †Charles Vincent Taylor, *Executive Committee*

The School of Biological Sciences includes the following departments or subjects within departments: Anatomy, Bacteriology and Experimental Pathology, Biochemistry, Botany, Experimental Psychology, Food Research, Hopkins Marine Station, Paleontology, Physiology, and Zoölogy. (Courses in Biochemistry, Experimental Psychology, Food Research, and Paleontology are listed under separate headings.) Programs are offered leading to the degrees of Bachelor of Arts, Master of Arts, and Doctor of Philosophy in the School of Biological Sciences. These are supplementary to the programs offered by the various individual departments of the School.

*Graduation.*—The requirements for the degree of Bachelor of Arts in the School of Biological Sciences are as follows: Sixty units of work in the biological sciences, so chosen that there shall be fifteen units from each of three departments of the School. Provision is made for modifying the fifteen-unit departmental requirement to the effect that upon completion of ten units in any department the student may substitute work in another department upon securing the consent of both departments concerned and of his adviser in the School. The general program must be properly approved. Students are urged to include a summer or other quarter of work at the Hopkins Marine Station. One or more college courses in mathematics will be found helpful.

*Advanced Degrees.*—Candidates for the degree of Master of Arts in the School of Biological Sciences must fulfill the conditions outlined on pages 168-169, including the completion of a program of advanced study in biological science which has been approved by the Executive Committee of the School of Biological Sciences at the time of registration for the degree.

† Absent on leave, 1930–31.

Candidates for the degree of Doctor of Philosophy in the School of Biological Sciences must fulfill the conditions outlined on pages 171–173. In addition to this it is understood that the candidate's preparation shall include a basic knowledge of the classification, structure, and function of both plants and animals. The candidate's program of graduate study must be approved by the Executive Committee of the School of Biological Sciences prior to its submission to the Graduate Study Committee.

## GENERAL BIOLOGY

The courses in General Biology (Biology 1 and 2) are under an Administrative Committee composed of Professors Burlingame (Executive Director), Heath, E. G. Martin, and Peirce.

These courses attempt to present to beginners by means of lectures, illustrations, demonstrations, and laboratory exercises the fundamentals of Biology in its broadest sense. They include a study of: (1) Protoplasm, the common living substance of all plants and animals; (2) The organization of cells and their combination into multicellular organisms; (3) The rôle of green plants in the manufacture of foods; (4) The transformation of foods into the living substance of plants and animals; (5) The liberation and utilization of the chemical energy of foods; (6) The sensitivity of protoplasm and its rôle in correlating the internal processes of the organism on the one hand and relating and adjusting it to its environment on the other; (7) Disease and death of organisms; (8) The enrichment of the soil through the decomposition of organic remains and nitrogen fixation; (9) The perpetuation of the species through reproduction; (10) The laws and mechanism of heredity; (11) Evolution and adaptation of organisms; (12) The factors controlling the ecological and geographical distribution of organisms; and (13) Man's place in nature.

There are no prerequisites to the courses in General Biology, and both courses are required of all Lower Division students not presenting a high-school equivalent, before admission to the Upper Division. (See page 166.)

**1. Biology.**—Lectures and laboratory work.
5 units, autumn, *winter, and *spring quarters
Lec. (Burlingame, Doane, Martin, Peirce) TTh 8
Lab. (Hungate, Giese, and assistants) (I) MW 1:05–4:05; (II) TTh 1:05–4:05; (III) F 1:05–4:05 and S 9–12
*Autumn, 130; winter, 122; spring, 56*

**2. Biology.**—Lectures and laboratory work.
4 units, winter and *spring quarters
Lec. (Burlingame, Danforth, Martin, Smith, Stone) MW 8
Lab. (Hungate, Giese, and assistants) (I) MW 1:05–3:30; (II) TTh 1:05–3:30
*Winter, 85; spring, 57*

# ANATOMY

Clara S. Stoltenberg, Professor Emeritus

Arthur William Meyer, Charles Haskell Danforth, Joseph Clarence Hinsey, Frank Mace McFarland, Professors
J. Eldridge Markee, Homer Newton Violette, Assistant Professors
Lot Duncan Howard, Jr., Assistant in Instruction

The facilities of the Department of Anatomy are always at the disposal of properly qualified students or physicians who desire to undertake the investigation of some problem in gross or microscopic anatomy, embryology, physical anthropology, or mammalian genetics. Any earnest student desiring to investigate a problem in gross or microscopic anatomy or experimental biology need not be deterred by a fear of not being able to obtain the necessary equipment or material, but it is suggested that advanced students or physicians desiring to undertake special work communicate directly with those in charge of the contemplated work. Since the properly qualified graduate student in anatomy should occupy himself mainly with investigation, the chief emphasis is placed upon this rather than upon the pursuit of advanced courses. For the latter the student is referred also to the announcement of courses in the departments of Bacteriology, Biology, Physiology, Zoölogy, and the Hopkins Marine Station.

*Advanced Degrees.*—Students desiring to be admitted to candidacy for the degree of Master of Arts in Anatomy must have satisfactorily completed one year's work in histology and microscopic anatomy, at least one quarter in embryology, and possess a knowledge of laboratory technique adequate for the investigation to be undertaken, in addition to fulfilling the University requirements. For admission to candidacy for the degree of Doctor of Philosophy a reading knowledge of both French and German is further required.

*Library.*—All the important periodicals on human and comparative anatomy, anthropology, and experimental biology and technique are in the departmental or University Library, and those on medicine in the Lane Medical Library, which, although located in San Francisco, is an integral part of the University Library, and at the service of students.

*Fees.*—A deposit of $2.50 for microscopes and of $10 to cover damage to or loss of bones is required of all students registering in microscopic and in gross anatomy, respectively. This sum, less charges for damage or loss, is refunded at the close of the academic year, except in the case of students discontinuing work who may obtain the refund at the end of the quarter. Students who are not registered in medicine are charged a laboratory fee of $15 per quarter for Course 103, and $5 for each of the other laboratory courses. A fee of $5 per course is required also of medical students taking optional laboratory courses.

## REQUIRED COURSES

**101. General Histology and Microscopic Anatomy.**—A course dealing with the elementary structure and vital activities of the animal cell, the histology and development of the tissues, and their combination into the organs

of the vertebrates, with especial reference to the Mammalia. Open to medical students, and to others properly prepared, so far as laboratory space permits.
4 units, autumn and winter quarters (McFarland, Howard, Hinsey) Lec. by arrangement
Lab. (autumn) WThF 1:20–4:05; (winter) MT 9–12, W 1:20–4:05
*Autumn, 54; winter, 53*

**103. Dissection of the Human Body.**
20 units (Danforth, Meyer, Markee, Violette) Lab. (autumn) MW 8–12, TThF 9–12, 8 units; (winter) WThFS 9–12, 6 units; (spring) MTW 1:05–4:05, Th 8–11, 6 units
*Autumn, 52; winter, 49; spring, 47*

**206. Neurology.**—A study of the structure of the central nervous system of man by means of dissections and prepared slides, supplemented by dissections of the central nervous system of other mammals.
5 units, autumn and *spring quarters (Hinsey) MW 8–11, T 8–12
*Autumn, 1; spring, 46*

## OPTIONAL AND ADVANCED COURSES

**106. Human Heredity.**—A study of the facts and problems of heredity in relation to the individual and the population as a whole. Demonstrative experiments in mammalian genetics. Elective for medical students, others by permission.
2 units, autumn quarter (Danforth) TTh 11
*Autumn, 16*

**107. Cytology.**—The course deals with the structure and functions of the animal cell with special reference to the reproductive processes. Lectures, laboratory work, and assigned reading. Open to those who have had courses in Histology, Embryology, and Microscopic Technique.
3 to 5 units, spring quarter (McFarland) [Not given in 1930–31]

**108. Special Courses.**—Advanced courses in Histology, Histogenesis, Microscopic Anatomy, Cytology, or Microscopic Technique will be planned to suit the needs of individual students. Open to those who have had courses in Histology and Embryology.
2 to 5 units (McFarland) By arrangement
*Autumn, 6*

**111. Physical Anthropology.**—Practical instruction in anthropometric methods, and lectures on anatomical variation and heredity in man.
2 units (Danforth) [Not given in 1930–31]

**112. Mammalian and Human Embryology.**—A course designed especially for pre-medical students. It includes a study of early development in the mouse with special reference to human embryology and the commoner human developmental anomalies.
5 units, spring quarter (Meyer, Markee) TTh 1:05–2:05, MWF 1:05–4:05
*Spring, 72*

**113. Histology and Microscopic Anatomy.**—An elementary course designed to present the fundamental facts of these subjects with some training in their interpretation. Not open to pre-medical or to medical students.
3 units, spring quarter (McFarland) [Not given in 1930–31]

**114. Histology.**—A brief course for non-medical students who may not be able to enroll in Course 101.
2 units, winter quarter (Hinsey) MTW 1:05–4:05
*Winter, 13*

**120. Human Anatomy.**—A brief survey of the human body by means of laboratory study of anatomical preparations and by discussions, designed primarily for students of Hygiene and Physical Education, but open to

other non-medical students by special permission. Particular emphasis is placed upon body form, asymmetries, the characteristics of the mature and immature body and skeleton, the topography of the chief viscera, the gross structure and mechanics of joints, relations and actions of the muscles, the nature and range of the chief bodily movements and their effects upon underlying structures. Limited to 15 students.

3 units, summer quarter (HOWARD) By arrangement
*Summer, 13*

**209. Topographical Anatomy.**—The work consists of the laboratory study of frozen sections of fetal, infantile, and adult cadavers made in various planes, and of dissected and specially injected preparations, supplemented by models and atlases.

2 to 5 units (MEYER) By arrangement
*Autumn, 4; winter, 1*

**213. Investigation and Special Work.**—This work must be arranged for individually with the professor or professors concerned, but may be started at any time.

*Winter, 1; spring, 4*

**214. Conferences in Anatomy.**—Special topics are assigned for reading and discussion two to three hours weekly. Prerequisites: Courses 101 and 103.

2 to 3 units (MEYER) [Not given in 1930–31]

## BACTERIOLOGY AND EXPERIMENTAL PATHOLOGY

EDWIN WILLIAM SCHULTZ, WILFRED HAMILTON MANWARING, Professors
CHARLES EGOLF CLIFTON, Assistant Professor

[With the co-operation of DR. BEARD of the Department of Civil Engineering.]

The Department of Bacteriology and Experimental Pathology enjoys ample facilities for instruction and research work in general and pathogenic bacteriology, immunology, and filterable viruses. Properly prepared undergraduates may launch upon a full program of study in the department during their fourth year, and in one year of intensive work may lay the essential foundation for research work in any one of the special fields mentioned. While the department is primarily interested in graduate students desiring to prepare themselves for research careers in bacteriology, every attention is given to undergraduate students who may desire either to spend an additional year in their preparation for the medical school, or to prepare themselves for careers in diagnostic laboratories in hospitals, public health work, etc. Pre-medical students planning to take the Bachelor's degree in bacteriology before entering on their medical studies must present *at the end of their third year* the same credentials as are required for admission to the School of Medicine. There is no opportunity offered during the fourth year in bacteriology to make up any deficiencies in the work required for admission to medicine.

*Recommended Curriculum for Degree of Bachelor of Arts.*—Students intending to major in the department should include the following courses in their Lower Division program: Chemistry 1, 2, 3 (or 10, 11, 12), 20; Zoölogy 2; and if possible both French and German. The normal program for the third and fourth years is given below:

THIRD YEAR

| Autumn | | Winter | | Spring | |
|---|---|---|---|---|---|
| Subject | Units | Subject | Units | Subject | Units |
| Chem. 121, Organic Lectures | 3 | Chem. 123, Organic Lectures | 3 | Anat. 112, Embryology | 5 |
| *Phys. 21, 22, Mechanics and Heat | 5 | Chem. 111, Quantitative Analysis | 1 | Chem. 125, Organic Lectures | 3 |
| Electives | 7 | Chem. 112, Quantitative Analysis | 4 | *Phys. 25, Modern | 3 |
| | | *Phys. 23, 24, Electricity | 4 | *Phys. 26, Elementary Optics | 1 |
| | | Electives | 3 | Electives | 3 |
| Total | 15 | Total | 15 | Total | 15 |

* If not included in the Lower Division program.

FOURTH YEAR

| Autumn | | Winter | | Spring | |
|---|---|---|---|---|---|
| Subject | Units | Subject | Units | Subject | Units |
| Bact. 201, Medical | 9 | Bact. 203, Principles of Immunity | 2 | Bact. 102, Sanitary Biology | 3 |
| Bact. 205, Bio-physics | 3 | Bact. 204, Serology | 2 | Bact. 202, Filterable Viruses | 2 |
| Electives | 3 | Bact. 207, Advanced Bacteriology | 4 | Electives | 10 |
| | | Chem. 223, Colloids | 2 | | |
| | | Electives | 5 | | |
| Total | 15 | Total | 15 | Total | 15 |

*Advanced Degrees.*—Applicants for the degree of Master of Arts in Bacteriology and Experimental Pathology will be expected to complete, in addition to the requirements for the Bachelor's degree, the equivalent of forty-five units of work in the University, of which approximately two-thirds must be devoted to research in the department. The department work includes an acceptable thesis based on laboratory work, and Courses 201, 202, 203, 204, 205, and 207, if the equivalent has not been included in the undergraduate work. The candidate will be expected to pass a general examination, oral, written, or both, on the fundamentals of bacteriology and immunology, and subjects related thereto, as well as on the thesis subject. The examination will be given by the department examining committee, the major adviser acting as chairman, at least two weeks before the candidate expects to receive the degree. A good reading knowledge of French or German, preferably both, must also be demonstrated.

Candidates for the degree of Doctor of Philosophy in Bacteriology and Experimental Pathology, after the completion of the equivalent of the requirements for the degree of Master of Arts, will follow such courses as are approved by the department, subject to general University regulations.

*Fees.*—Courses 201 and 204, $20 each; Courses 100, 101, 207, 229, and 230, $10 each; Courses 102 and 233, $5 each; Course 220, $2 per unit. Microscope rental, $5 per quarter.

## COURSES OF INSTRUCTION

**100. General Bacteriology.**—Lectures and laboratory work covering a variety of non-pathogenic forms, including those related to the fertility of the soil and to the dairy and other industries, as well as pathogenic forms

concerned in human, animal, and plant diseases. Prerequisites: General Biology and General Chemistry.
5 units, summer quarter (CLIFTON) Lec. MWF 1; Lab. MWF 2–4
*Summer, 5*

**101. Sanitary Bacteriology.**—A course of lectures and laboratory exercises dealing mainly with the bacteriology of food, water, and sewage. Intended primarily for sanitary engineering students, biology majors, and those planning to enter careers as public health workers. Prerequisites: General Biology and General Chemistry.
6 units, winter quarter (BEARD) Lec. MWF 1; Lab. MWF 2–4
*Winter, 10*

**102. Sanitary Biology.**—Designed especially for sanitary engineers, health officers, physicians, and biochemists. Regular methods of plankton analysis, determination of the significant properties of water in relation to plants and animals, visits to ponds, water supplies, etc. Whipple's *Microscopy of Drinking Water* will be used as a guide. One lecture, one laboratory period, one field trip each week.
3 units, spring quarter (BEARD) Lec. T 9; Lab. ThS 9–12
*Spring, 16*

**201. Medical Bacteriology.**—A course devoted chiefly to the pathogenic bacteria, with emphasis on the laboratory procedures employed in the diagnosis of bacterial infections. Prerequisite: Organic Chemistry. Limited to 68 students.
9 units. autumn and *winter quarters (SCHULTZ, CLIFTON, and ASSISTANTS) Lec. MTWThF 8; Lab. MTWThF 9–11
*Autumn, 62; winter, 2; summer, 1*

**203. Principles of Immunity.**—A course of lectures on immunity and serological methods. Must be preceded by Course 201.
2 units, winter quarter (SCHULTZ) TTh 8
*Winter, 18*

**204. Serology.**—A laboratory study of the toxin-antitoxin reaction, bacteriolysis, hemolysis, agglutination, and precipitin reactions; phagocytosis, complement fixation, anaphylaxis, etc. Not given for less than eight students. Must be accompanied by Course 203.
2 units, winter quarter (SCHULTZ and ASSISTANTS) TTh 9–12
*Winter, 18*

**205. Biophysics.**—A course of lectures and demonstrations in physical chemistry, with particular reference to problems in bacteriology and related subjects.
3 units, autumn quarter (CLIFTON) MWF 11
*Autumn, 21*

**206. Diagnostic Laboratory Methods.**—A limited number of qualified students may be admitted to the Palo Alto Hospital and Public Health Laboratory for training and experience in routine diagnostic work. The practical instruction is supplemented by special talks and assigned reading on procedures not already familiar to the student. Limited to two students per quarter.
5 units, any quarter (SCHULTZ) Forenoons or afternoons
*Summer, 1*

**207. Advanced Bacteriology.**—An advanced course in bacteriological methods, including the preparation of glassware, media, stains, and reagents; the identification of bacteria, non-pathogenic, as well as pathogenic, etc. A

portion of the course is devoted to special work on the bacteriology of foods, water, and sewage.

5 units, winter quarter (SCHULTZ) Lec. MWF 9; Lab. MWF 10–12
*Winter, 16*

**218. Journal Club.**—A study of current literature in bacteriology, immunology, and the filterable viruses, with weekly conferences.

2 units, winter quarter (DEPARTMENT FACULTY) [Not given in 1930–31]

**219. Research Seminar.**—Students present summaries of the progress of their researches and reviews of the literature bearing on their studies. Required of all majors doing research in the department.

1 unit, spring quarter (DEPARTMENT FACULTY) [Not given in 1930–31]

**210, 220. Research.**—Qualified students may begin research work at any time in either bacteriology, immunology, or the filterable viruses. Candidates must present at least the equivalent of Courses 201, 203, 204, and 229, together with a satisfactory scholastic record.

5 to 10 units, any quarter (DEPARTMENT FACULTY) By arrangement
*Autumn, 5; winter, 8; spring, 9; summer, 4*

**221. Research in Immunological Theory.**—An opportunity for four students to act as research assistants in immunological theory, the problem being approached by physiological and biochemical methods. An independent problem will be assigned by the beginning of the third quarter. Prerequisites for independent work: Chemistry 141, 142, 143, 144; Physiology 104, 105; Bacteriology 201, 203, 204, or equivalents, and a dependable immuno-physiological technique.

5 to 10 units, autumn, winter, and spring quarters (MANWARING) [Not given in 1930–31]

**229. Filterable Viruses.**—Lectures, demonstrations, and laboratory exercises on the ultrascopic agents responsible for infectious diseases of plants, animals, and of man.

2 units, spring quarter (SCHULTZ) Lec. TTh 8
*Spring, 17*

**230. General Pathology.**—Lectures, demonstrations, and laboratory exercises on the more important pathologic entities, such as: cell degeneration, necrosis, hyperemia, hemorrhage, thrombosis, atrophy, hypertrophy and hyperplasia, pigmentation, inflammation, organization, regeneration, tumors, etc. The course is given largely from the experimental point of view and is designed primarily for department majors. Prerequisites: Anatomy 114 and Bacteriology 225 and 226, or the equivalents.

5 units, spring quarter (SCHULTZ and ASSISTANTS) Lec. MWF 9; Lab. MWF 10–12
*Spring, 15*

**232. Bacteriological Chemistry and Physics.**—An advanced course of lectures and demonstrations on the chemistry and physics of the bacterial cell, including osmotic phenomena, adsorption, enzyme action, bacterial metabolism and respiration, and the biophysics and antigen-antibody reactions. Prerequisites: Courses 225, 226, or the equivalents.

3 units, spring quarter (CLIFTON) MWF 8
*Spring, 16*

**233. Media Preparations.**—A course of laboratory exercises and demonstrations on the preparation of the more important culture media and reagents.

1 unit, spring quarter (SCHULTZ and ASSISTANTS) T 1–4
*Spring, 13*

**234. Diagnostic Laboratory Methods.**—A limited number of qualified students may be admitted to the Palo Alto Hospital and Public Health

Laboratory for training and experience in routine diagnostic work. The practical instruction is supplemented by special talks and assigned reading on procedures not already familiar to the student. Limited to two students per quarter. Prerequisites: Courses 225, 226, 227, 228, or the equivalents.
5 units, any quarter (Schultz and Assistants) Forenoons or afternoons
*Summer, 1*

**235. Seminar.**—A study of recent literature in bacteriology, immunology, and filterable viruses with presentation of reviews on various topics.
2 units, spring quarter (Department Faculty) M 8 P.M.
*Spring, 13*

## BIOLOGY

Leonas Lancelot Burlingame, †Charles Vincent Taylor, Professors Arthur Giese, Robert Edward Hungate, Acting Instructors

[With the co-operation of Professor Danforth of the Department of Anatomy, Professor Luck of the Department of Chemistry, and Professor Harry Clark of the Department of Physics.]

**100. Microscopical Technique.**—Exercises in killing, fixing, embedding, sectioning, and staining of materials for microscopic examination. Prerequisites: One year of Zoölogy, Botany, or General Biology.
5 units, autumn quarter (Burlingame) Fifteen forenoon hours per week
*Autumn, 6*

**110. Advanced General Biology.**—Required of assistants.
4 units, autumn and winter quarters (Burlingame) By arrangement
*Autumn, 6; winter, 6*

**125. Biophysics.**—Lectures on the applications of physical principles to the interpretations of certain biological phenomena; the response of living matter to radiation and other physical stimuli. Prerequisite: Physics 25 or 101 or 103. [See also Physics 125.]
2 units, autumn quarter (H. Clark) TTh 10
*Autumn, 21*

**150. Genetics.**—Lectures, assigned reading, and conferences on inheritance in plants, animals, and man. Prerequisite: General Biology, or equivalent.
3 units, spring quarter (Burlingame) MWF 10
*Spring, 22*

**152. Problems in Genetics.**—This course offers an opportunity to continue advanced work along the lines of Course 150.
Any quarter (Burlingame) By arrangement
*Autumn, 1; winter, 1*

**160. Protoplasm.**—An account of the fundamental architecture of protoplasm, its elementary chemophysical properties, and the reorganization of its differentiated parts composing the living cell. Laboratory work includes microscopic studies of living cells, chiefly Protozoa, with the aid of methods of micromanipulation. For senior and graduate majors in the School of Biological Sciences. Limited to eight students. Prerequisites: Chemistry 141 and Physics 125.
4 units, winter quarter (Taylor) [Not given in 1930–31]

† Absent on leave, 1930–31.

**170. Cytology.**—Reading, conferences, and laboratory exercises on the structure of the cell. Especial attention is given to the structure and behavior of the nucleus with particular reference to its function in heredity. Prerequisite: One year of plant or animal morphology.
5 units, winter quarter (BURLINGAME) MTWThF 10–12
*Winter, 6*

**171. Human Heredity.**—A review of the facts and problems of heredity in relation to the individual and to the population as a whole. [See also Anatomy 106.]
2 units, autumn quarter (DANFORTH) TTh 11
*Autumn, 16*

**250. Research in Cytology and Genetics.**—For students who wish to undertake original work in genetics or cytology. Prerequisites are an adequate training in biology and such special courses as the nature of the work makes necessary.
Any quarter (BURLINGAME) [Not given in 1930–31]

**260. Research: Protoplasm.**
(TAYLOR) [Not given in 1930–31]

**261. Seminar in Chemophysical Biology.**—[See also Chemistry 261 and Physics 261.]
Autumn, winter, and spring quarters (CLARK, LUCK, BAUMBERGER) Th 4
*Autumn, 5; winter, 4; spring, 6*

**[Teachers' Course in Biology.**—See Education 203.]

*Fees.*—Fees are charged in the various courses approximately sufficient to cover the cost of the perishable materials and syllabus used, as follows: Courses 100, 152, 170, $1 per unit, each; Course 150, $1; Course 160, $3. The fees for Courses 250 and 260 are charged according to special arrangement with the instructor concerned.

## BOTANY

DOUGLAS HOUGHTON CAMPBELL, Professor Emeritus

GEORGE JAMES PEIRCE, LEROY ABRAMS, GILBERT MORGAN SMITH, Professors
HARVEY MONROE HALL, Acting Professor
JAMES IRA WILSON MCMURPHY, Associate Professor
IRA LOREN WIGGINS, Assistant Professor
WILLIAM AUSTIN CANNON, WILLIAM FRANKLIN WIGHT, Lecturers on California Botany

[With the co-operation of PROFESSORS BECKING, VAN NIEL, and BURLINGAME of the Division of Biology.]

The Department of Botany aims to provide instruction for two classes of students: (*a*) Students who wish to know something of the structures, life processes, relationships, and uses of plants, and to gain some familiarity with the methods of scientific work; and (*b*) Professional students who look forward to investigation, teaching, or the technical applications of Botany in Plant Breeding, Forestry, Agriculture, Horticulture, Plant Pathology, Sanitation, and Public Health. Courses 1, 2, and 3, which present the elements

of the more important divisions of botanical study, are designed to meet the needs of both groups of students. Courses 110, 111, 112, 113, 114, 120, 130, 140, 141, 142, 143, are open to students who have had Courses 1, 2, and 3, or the equivalent. It is the aim of these courses to give the student, by means of lectures and references to the literature, a general and summary account of the present state of knowledge, and in the laboratory and the field to afford him an opportunity for a personal acquaintance with plants themselves. Students who have had two or more years' work may, after consultation, be registered in Courses 121, 122, 123, 131, 210, 240.

*Department Resources.*—The resources of the department afford exceptional opportunities in a number of fields. Students will be received in five lines of botanical study, namely, morphology (with PROFESSOR SMITH), cytology and genetics (with PROFESSOR BURLINGAME), physiology (with PROFESSORS PEIRCE and BECKING, the latter at the Hopkins Marine Station), taxonomy and plant geography (with PROFESSORS ABRAMS and WIGGINS), mycology and plant pathology (with PROFESSOR MCMURPHY). The laboratories are equipped with apparatus and appliances for these subjects, and the University Library contains the necessary references. In addition, the collections of PROFESSOR CAMPBELL in various parts of the world, and the richness of the local flora, offer special opportunity for work in the Archegoniatae. The extraordinary climatic conditions, permitting plants to grow throughout the year and allowing the successful cultivation of plants from many other parts of the world, furnish fresh material and the opportunity for physiological and genetical work under natural conditions. In the Dudley Herbarium (see page 198) are extensive collections of both flowering and flowerless plants.

The Arboretum, established by Senator Stanford prior to the opening of the University, covers approximately 200 acres and contains a large variety of conifers as well as many trees and shrubs of other species. In 1916 it was made an integral part of the Department of Botany, and plantings and replacements were begun with a view to bringing together not only a large variety of exotic species, but also a comparatively complete collection of the trees and shrubs native to western North America.

The Experimental Gardens and greenhouses, besides the extensive permanent plantings in the Arboretum and elsewhere on the grounds of the University, provide facilities for growing plants under control. Experiments in plant breeding (PROFESSOR BURLINGAME), plant pathology (PROFESSOR MCMURPHY), and physiology (PROFESSOR PEIRCE) are being carried on, and the department will be glad to place these facilities at the disposal of qualified students wishing to do similar work.

*Graduation.*—Major students in the department will be expected to complete sixty units in Botany, and five units in Zoölogy. The sixty units should include Courses 1, 2, 3, 110, 111, 112, 113, 114, 120, 130, 140, 141, 142. Students should also be able to read French and German.

*Degree of Doctor of Philosophy.*—Candidates for the degree of Doctor of Philosophy in Botany are required to have a thorough grounding in the morphology, physiology, and taxonomy of plants before beginning work on their dissertation, and to be able to read French and German before undertaking their work for the Doctor's degree. Candidates for the Doctor's degree, offering Botany as a minor, should have the equivalent of the requirement for the Bachelor's degree with Botany as a major subject.

*The Teacher's Recommendation* in the University is based on the satis-

factory completion of a minimum of two majors, or one major and two minors. A minor in Botany consists of Elementary Botany (Courses 1, 2, 3) and one advanced course, chosen from the following: 110, 111, 112, 113, 114, 120, 121, 130, 140, 141, 142. A major must include the following: Elementary Botany (1, 2, 3), Morphology of the Fungi (120), General Morphology (110, 111, 112, 113, 114), Advanced Systematic Botany (130), Physiology (140, 141, 142), a total of 39 units.

*Research and Special Work.*—Properly qualified students desiring to undertake research should register in Courses 211, 220, 230, 240, after consultation with the instructor concerned.

Students looking to Forestry or Agriculture as a profession should include Courses 113, 114, 120, 130, 140, 141, 142 as part of their preparation, and the following subjects in other departments: elementary physics, chemistry, geology and physiography, zoölogy, entomology, economics, and applied mathematics. They should also be able to read French and German.

*Summer Quarter.*—In 1932, and during each summer quarter thereafter, it is expected that work will be offered at the Hopkins Marine Station on the Algae, of both fresh and salt water; and either at the Hopkins Marine Station or at the University, or at both places, the following courses:

Elementary Botany
Taxonomy of Seed Plants
The Physiology of Plants
Research in Morphology and Physiology

*Fees.*—A fee of $1 per unit up to $3 is charged in the various courses to cover the cost of the perishable materials and syllabus used.

## COURSES OF INSTRUCTION

[General Botany (Courses 1 and 2) and Elementary Systematic Botany (Course 3), or their equivalents, are prerequisite to all other courses in Botany.]

**1. General Botany.**—A study of the vegetative organs of the higher plants with special emphasis on structure and function.
3 units, autumn quarter (McMURPHY and ASSISTANTS) MTW 1:05–3:45
*Autumn, 39*

**2. General Botany.**—A continuation of General Botany 1, and comprising an intensive study of representatives from the principal groups of plants. Prerequisite: Course 1.
3 units, winter quarter (McMURPHY and ASSISTANTS) MTW 1:05–3:45
*Winter, 21*

**3. Elementary Systematic Botany.**—This course is intended to acquaint the student with the classification of the flowering plants. In addition to the laboratory study of representatives of the more important plant families, the student collects and classifies supplementary species. Prerequisite: Course 1 or 2.
3 units, spring quarter (ABRAMS and ASSISTANTS) MTW 1:05–3:45
*Spring, 21*

**110. Morphology of the Algae.**—Lectures and laboratory work on the morphology and classification of the Algae. (This course is also offered as a five-unit course at the Hopkins Marine Station during the summer quarter.)
3 units, spring quarter (SMITH) MTW 10–12
*Spring, 3*

**111. Morphology of the Bryophytes.**—Lectures and laboratory work on the special morphology and classification of the Bryophytes.
3 units, winter quarter (SMITH) MTW 8–10
*Winter, 4*

**112. Morphology of the Pteridophytes.**—Lectures and laboratory work on the special morphology and classification of the Pteridophytes.
3 units, spring quarter (SMITH) MTW 8–10
*Spring, 1*

**113. Morphology and Classification of the Gymnosperms.**—Lectures and laboratory work on the anatomy, morphology, and classification of Gymnosperms.
5 units, autumn quarter (WIGGINS) MTWThF 8–10
*Autumn, 6*

**114. Morphology of the Angiosperms.**—Lectures and laboratory work on the anatomy of vegetative parts and the morphology and development of the floral organs of Angiosperms.
3 units, autumn quarter (SMITH) [Not given in 1930–31]

**120. Morphology of the Fungi.**—Lectures and laboratory work on the morphology and classification of Fungi. Prerequisite: Course 2.
3 units, autumn and *winter quarters (MCMURPHY) ThF 1:05–3:45, S 8–12
*Autumn, 1; winter, 5*

**122. Advanced Plant Pathology.**—Field and laboratory work on special diseases.
(MCMURPHY) [Not given in 1930–31]

**123. Advanced Mycology.**—Field and laboratory work on special Fungi or groups of Fungi.
(MCMURPHY) [Not given in 1930–31]

**130. Advanced Systematic Botany.**—Lectures and laboratory work on the phylogeny, classification, and geographical distribution of the Angiosperms.
3 units, winter and spring quarters (ABRAMS) . MTW 1:05–3:45
*Winter, 4; spring, 5*

**131. Special Taxonomy.**—Special problems in taxonomy and geographical distribution.
(ABRAMS, WIGGINS) By arrangement
*Autumn, 1; winter, 1; spring, 1*

**140. Plant Physiology.**—The manufacture of food and fuel. Lectures, laboratory work, and reading. Knowledge of the elements of physics and chemistry is required.
3 units, autumn quarter (PEIRCE) MTW 8–10
*Autumn, 4*

**141. Plant Physiology.**—The use of food and fuel. Lectures, laboratory work, and reading. Knowledge of the elements of physics and chemistry is required.
3 units, winter quarter (PEIRCE) MTW 10–12
*Winter, 2*

**142. Plant Physiology.**—Growth, irritability, reproduction. Lectures, laboratory work, and reading. Knowledge of the elements of physics and chemistry is required.
3 units, spring quarter (PEIRCE)
*Spring, 5*

**143. Plant Relations.** Lectures, field and laboratory work on the observable form, structure, and distribution of plants as influenced by environmental factors.
3 units, autumn quarter (CANNON) [Not given in 1930–31]

**200. Journal Club.**—Oral reports on the current literature of Botany by the departmental faculty and graduate students.
1 unit, autumn quarter M 8 P.M.
*Autumn, 1*

**210. Advanced Special Morphology.**—The department offers work supplemental to Courses 110, 111, 112, 113, and 114 by means of assigned readings and laboratory study. Its collections are particularly rich in preserved material and microscopic preparations of Bryophytes and Pteridophytes.
(SMITH) [Not given in 1930–31]

**211. Research in Morphology.**
(SMITH) By arrangement
*Spring, 1*

**220. Research in Plant Pathology.**
(MCMURPHY) By arrangement
*Winter, 1*

**230. Research in Taxonomy.**—The graduate work in Taxonomy is given at the Dudley Herbarium in the Museum Building.
(ABRAMS, WIGGINS) By arrangement
*Autumn, 1; winter, 1; spring, 1*

**240. Research in Physiology.**
(PEIRCE) By arrangement
*Autumn, 1; winter, 2; spring, 2*

The following courses, while listed under Biology, may be credited toward degrees in Botany, namely: Genetics and Cytology (Biology 150, 152, 170, 250).

## DUDLEY HERBARIUM

LEROY ABRAMS, Director
JAMES IRA WILSON MCMURPHY, Curator of Mycological Collection
IRA LOREN WIGGINS, Curator
ELMER IVAN APPLEGATE, Acting Curator
ROXANA STINCHFIELD FERRIS, Assistant Curator

The Dudley Herbarium, named in honor of the late Professor William Russel Dudley, occupies the second floor of the south wing of the Museum Building. The mounted collections consist of approximately 170,000 specimens of vascular plants and 10,000 specimens of the lower cryptogams. Among the more important collections in the Herbarium are the William Russel Dudley, the William H. Harvey, and the Samuel B. Parish collections. The Herbarium is especially rich in material from western North America and offers unusual facilities for critical systematic and distributional studies of the flora of that region.

Botanical exploration is carried on each season by one or more members of the staff, and properly qualified students are encouraged to participate in this work.

The special and research courses in taxonomy scheduled in the Department of Botany are given at the Herbarium.

## HOPKINS MARINE STATION

Walter Kenrick Fisher, Director
†Charles Vincent Taylor, Associate Director
Laurence B. Becking, Harold Heath, Gilbert Morgan Smith, Professors
Leonor Michaelis (Rockefeller Institute for Medical Research), Acting Professor (Summer Quarter)
James Percy Baumberger, Cornelis Bernardus van Niel, Tage Skogsberg, Associate Professors
George Eber MacGinitie, Harold Mestre, Assistant Professors
Elisabeth Deichmann, Acting Instructor (Summer Quarter)
Tadaichi Hashimoto, Research Chemist
Lawrence Rogers Blinks, Charles Atwood Kofoid, †Arthur Russell Moore, Lecturers

### ORGANIZATION

The Hopkins Marine Station is a department of the University, controlled by the Board of Trustees, the President, and the Academic Council in the same manner as other departments of the University.

The staff consists of the Director and those resident and visiting members of the University Faculty who participate in the research and teaching program of the Station.

### LOCATION AND EQUIPMENT

The Station is situated at Pacific Grove, on the south side of Monterey Bay, California. The ground area comprises seven and a half acres, consisting of the main portion of Cabrillo Point, with complete control of the coast line of the Point and including an excellent sheltered landing place and harbor for boats.

The first unit, the Alexander Agassiz Laboratory, erected in 1917, is of reinforced concrete construction, approximately forty feet by eighty-three feet, and three stories in height. The first floor provides an aquarium room, containing a large floor aquarium and tables for small aquariums; a concrete-floored room for the storage of boats, collecting apparatus, etc.; a store room, furnace room, photographic dark room, and two research rooms. The second floor, into which the main entrance opens, is devoted to the three large general laboratories. Two private laboratories for instructors are also provided on this floor. The third floor contains a library, an adjoining instrument room, an advanced laboratory, and six private laboratories for investigators. Fresh and salt water are provided. There are thus five laboratories available for classes and eleven private laboratories in part used by the resident staff.

The construction of a second unit of the station, known as the Jacques Loeb Laboratory, was completed in July, 1928. The new building, devoted to experimental biology, is of reinforced concrete construction and consists of a two-story central portion, with two flanking wings of one story, enclosing three sides of a front court, the over all dimensions being ninety-five by one hundred fifty-two feet. The eastern half of the first floor consists of

† Absent on leave, 1930–31.

a general laboratory, three advanced laboratories, four private rooms, two store rooms, and an office. The western half comprises a chemistry laboratory, two other large rooms for special work, a thermostat room, a balance room, a small store room, three special apparatus rooms, three small dark laboratories, a photographic dark room, and a general office. The principal laboratories and work rooms are supplied with sea water, hot and cold fresh water, gas, direct and alternating current, compressed air, and vacuum outlets. Heating is by steam. The second story consists of two stack rooms, a reading room, and two private rooms.

The adjacent boiler house, in addition to the central installation for the various systems of pipes, contains a store room and a work shop. A new sea-water tank has been constructed west of the building, on an elevation of rocks, so that all vibration from pumps is eliminated. The new pumping station is on the extreme western part of Cabrillo Point, where a supply of pure sea water is available.

## WORK OF THE STATION

The Hopkins Marine Station is open during the entire year and maintains a permanent staff of resident investigators and technical assistants, and in addition a few visiting staff members during the spring and summer. It provides facilities for visiting investigators, and furnishes elementary and advanced instruction in biology. Graduate and undergraduate courses are specified below.

The research program in a general way will concern itself with oceanic biology. This work will include a hydrobiological survey of Monterey Bay, in co-operation with the State Fish and Game Commission. Special attention will be paid to the relations between the organism and its environment, including a consideration of the composition of sea water. Oceanic bacteriology will be given attention, as well as the spectroscopic and chemical study of bacterial and algal pigments. A systematic survey of the fauna and flora will be undertaken and any promising leads in the natural history of marine organisms will be followed. As a part of the hydrobiological survey, data will be accumulated on the movements of pelagic organisms. Work on normal and controlled development of certain of the invertebrates will be prosecuted, but must of necessity be slow.

Excellent material is therefore available for research in cellular biology, experimental morphology, embryology, and taxonomy. In the last field the need for high-class work, especially among invertebrates, is acute.

Owing to the proximity of oceanic depths it is expected that opportunity will be available, during the hydrobiological survey, for studies in the physiology of deep-water organisms.

## NATURAL RESOURCES

The marine flora is rich in brown and red algae, the former including abundant and characteristic kelps of large size.

The wealth of marine forms is in part due to the diversity of environment, which ranges from a rugged granite coast, broken by beaches, to sheltered estuaries alive with mud-loving species.

The groups which especially give character to the fauna are the coelenterates, polyclads, nemerteans, bryozoans, echinoderms, chitons, gastropods, polychaets, the higher crustacea, and the tunicates. Among actinians, Evactis, Epiactis, Urticina, and Corynactis are the high lights. The solitary coral,

Balanophyllia, is abundant. There are about ninety species of hydroids, and Scyphozoa are represented by Aurelia, Chrysaora, and Pelagia. Siphonophores and ctenophores are occasionally common but of uncertain occurrence.

For experimental biology an abundance of sea urchins (*Strongylocentrotus purpuratus* and *franciscanus)* is available. The sea star, *Patiria miniata,* is equally good. *Leptasterias aequalis* and *Henricia leviuscula* brood their eggs. The same is true of the small holothurians, *Cucumaria curata* and *Thyonepsolus nutriens.*

There are upward of fifty species of chitons, the largest, *Cryptochiton stelleri,* reaching a length of twelve or fifteen inches. Prosobranch and nudibranch gastropods abound. The large abalone (*Haliotis*) is the outstanding mollusc of the coast. Dorid nudibranchs are conspicuous for their size and brilliant coloring. The bay teems with squid in spring and summer, and octopus, which is common but not easy to procure, reaches a weight of forty pounds.

Among the polychaets there are numerous representatives of Halosydna, Polynoe, Nereis, Leodice, Lumbrinereis, Glycera, and Amphitrite. A showy sabellid, Eudistylia, is abundant, while every rock-pool is alive with serpulids. Arenicola is less easily procured. A big echiuroid, *Urechis caupo,* is an almost perfect type for experimentation and its large, clear eggs can be procured without injury to the animal. Sipunculids are abundant and large. Conditions appear to be ideal for flat-worms and nemerteans. Bryozoa, especially the encrusting forms, are conspicuous and complete for available surface with sponges and very thrifty compound ascidians.

Among the crustacea the crabs are most conspicuous, but of more interest are the primitive burrowing shrimps, Callianassa and Upogebia. Emerita is abundant as are also pagurids and several mysids. Barnacles of several species are very abundant, on the granite, and of course swarms of isopods and amphipods.

Mention should be made of the hag-fish, Polistotrema, of the chimaeroid, *Chimæra collici,* and of the midshipman, *Porichthys notatus,* which is equally interesting for its conveniently deposited eggs and numerous photogenic organs.

The plankton of the bay is rich in larval forms and protozoa.

## ADMISSION AND FEE

Candidates for admission should make application to the Director, Hopkins Marine Station, Pacific Grove. The application should state whether admission to the Lower, Upper, or Graduate Division is desired, and in which of the following classes the candidate expects to register:

*Class A.* Special workers not expecting formal credit and not candidates for degrees.

*Class B.* Assigned students from institutions which have agreed to accept work completed at the Station in fulfillment of their requirements.*

*Class C.* Fully matriculated students in Stanford University.

(For detailed information regarding procedure and credentials necessary for admission, and the courses offered, see the *Announcement of the Hopkins Marine Station.*)

* Class B students should procure authorization to take the work desired from the Registrar of the institution from which they have been assigned. For these students, not fully matriculated, no records are kept on file at the Registrar's Office of Stanford University.

The General Fee for all new students taking regular courses or pursuing special work, beginning with the autumn quarter, 1930, is $100 per quarter. Students who have been registered in the University prior to that date may continue to pay at the rate of $85 per quarter until the autumn quarter, 1933, when they will be charged the increased fee of $100 per quarter.

Ten dollars of the General Fee for reservation of laboratory space is due at the time of application, and the balance on Registration day (*except that for the summer quarter the balance must be paid by June 15*). No refund of the General Fee will be made to students who leave before the end of the quarter.

Visiting investigators will be charged for the use of instruments and materials not to exceed fifty dollars per quarter.

Late registration will be permitted only with the approval of the Director and of the instructors concerned.

*Students will not be accepted for half-quarter registration.*

## COURSES OF INSTRUCTION

### Winter Quarter, 1931

Formal courses will not be offered. Special work for graduate and Upper Division students will be offered by the staff along the lines indicated by formal courses listed below (see also work of the Station above).

### Spring Quarter, 1931

[Instruction begins March 30 and ends May 30.]

**510. Marine Zoölogy.**—An introduction to general zoölogy and ecology, illustrated by the animals of Monterey Bay. Limited to fourteen students.
5 units (MacGinitie) Three forenoons per week
*Spring, 16*

**515. Vertebrate Zoölogy.**—A study of the evolution of vertebrate form and structure as expressed by the different classes and by adaptations within a selected class. Equivalent to Comparative Anatomy. Limited to fourteen students.
5 units (Skogsberg) Three afternoons per week
*Spring, 15*

**550. Vertebrate Embryology.**—See same course, Summer Quarter.
5 units (Heath) Three forenoons per week
*Spring, 16*

**575. Research in General Physiology and Microbiology.**—For graduate students only.
(Mestre, van Niel) [Not given in 1930–31]

**580. Research in Zoölogy and Oceanic Biology.**—Problems connected with oceanic animals and their environment.
(Fisher, Heath, MacGinitie, Skogsberg) By arrangement
*Spring, 3*

[Note: The above courses will be given also in the spring quarter of 1932.]

### Summer Quarter, 1931

[Registration, June 18; instruction begins June 19; instruction ends August 22; students are not accepted for half-quarter registration.]

## Marine Biology

**500. The Ocean.**—A series of lectures on marine biology, required of all undergraduate students.
1 unit (Department Staff) By arrangement
*Summer, 18*

**521. The Algae.**—Lectures and laboratory work on the various classes of algae. Particular attention is given to the marine algae of the Pacific Coast. Limited to fourteen students.
5 units (Smith) By arrangement
*Summer, 4*

**541. Marine Invertebrates.**—Deals with anatomy, classification, and natural history of marine invertebrates. Although primarily for advanced students, may be undertaken by beginners majoring in Zoölogy. Limited to twenty-four students.
5 units (Fisher, Deichmann) MWF afternoons
*Summer, 18*

**543. Oceanic Biology.**—Deals with morphology, classification, and natural history of open-sea organisms; includes field trips aboard a boat equipped for deep-sea investigations. Limited to twelve students.
5 units (Skogsberg) TThS afternoons
*Summer, 10*

**545. Shore Ecology.**—A course primarily for biology majors designed to give an understanding of animal communities and the life activities of individual members of these communities in response to certain environmental factors. Prerequisite: a course in general zoölogy. Limited to eight students.
5 units MacGinitie) TThS forenoons
*Summer, 9*

## Embryology

**550. Vertebrate Embryology.**—A study of the early history of the germ layers in the starfish, followed by a detailed study of the early development of the salamander and mouse. Limited to fourteen students.
5 units (Heath) MWF forenoons
*Summer, 13*

## Physiology, Biochemistry, Microbiology

**530. General Microbiology.**—A laboratory course in which the student becomes acquainted with the principal methods used in microbiological work. Representatives of most of the important groups of saprophytic micro-organisms are studied, chiefly from the standpoint of their rôle in nature. Emphasis is laid on the saprophytic bacteria. Prerequisites: Chemistry 121 and 123.
5 units (van Niel) MWF afternoons
*Summer, 3*

**535. Physico-chemical Biology.**—An introductory survey of the relations of radiant energy, electricity, temperature, and pressure to living organisms, together with a consideration of some of the modern applications of physical research methods to biological problems. Lectures, demonstrations, reading, and discussion. Open to students who have had at least one year each of biology, physics, and chemistry.
5 units (Mestre) TThS forenoons
*Summer, 1*

**536. Problems in Physico-chemical Biology.**—Small problems arising from the general research program of the laboratory will be assigned to individual students. This work may be undertaken by properly qualified Upper Division and graduate students.

Units by arrangement (MESTRE) MWF afternoons
*Summer, 1*

**539. Physiology of Marine Organisms.**—A study of the principles of physiology as illustrated by the life of the ocean. The instruction is informal and is determined as to character by the interests and capabilities of the students enrolled. The work is mainly experimental, supplemented by lectures and conferences as occasions arise. An elementary working knowledge of biology and chemistry is assumed. Textbook: *The Elements of Physiology*, Martin and Weymouth. Enrollment limited to twelve Upper Division and graduate students.

5 units (MICHAELIS, BAUMBERGER) MWF forenoons
*Summer, 2*

### GRADUATE WORK

**575. Research in General Physiology and Microbiology.**—For graduate students only.

(BAUMBERGER, MESTRE, MICHAELIS, VAN NIEL) By arrangement
*Summer, 3*

**580. Research in Zoölogy and Oceanic Biology.**—Problems connected with oceanic animals and their environment.

(FISHER, HEATH, MACGINITIE, SKOGSBERG) By arrangement
*Summer, 9*

**590. Research in Plant Morphology.**—For students who wish to undertake original work in plant morphology. The richness of the marine flora makes the Station a particularly favorable place for research in the morphology of marine algae.

(SMITH) By arrangement
*Summer, 2*

Courses 510, 515, and 550 will count toward the requirements in Biology for those desiring to register in Medicine. Courses 510, 541, and 550 fulfill major requirements in the Department of Zoölogy.

[NOTE: The above courses with additions will be offered also in the summer quarter of 1932.]

## PHYSIOLOGY

OLIVER PEEBLES JENKINS, Professor Emeritus

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ERNEST GALE MARTIN, JAMES ROLLIN SLONAKER, Professors
LEONAR MICHAELIS (Rockefeller Institute for Medical Research), Acting Professor (Summer Quarter)
JAMES PERCY BAUMBERGER, GEORGE DANIEL SHAFER, FRANK WALTER WEYMOUTH, Associate Professors
JOHN FIELD II, VICTOR ERNEST HALL, Assistant Professors
SALLY MILLER FIELD, Assistant in Instruction (Summer Quarter)

The Department of Physiology offers major programs suited to the needs of three classes of undergraduates; (1) those preparing for the medical profession; (2) those preparing to become teachers and investigators in General Physiology, a field which concerns itself with the fundamental properties of protoplasm, both plant and animal; (3) those preparing for careers as teachers and investigators in the field of the special physiology of the higher animal organisms, including man.

The department is also prepared to guide suitably prepared graduate students in carrying out programs leading to the degrees of Master of Arts and Doctor of Philosophy. Upper Division students who are not majors in the department are admitted to all courses offered by the department for which they are qualified by their previous training.

*Requirements for Graduation.*—Major students are required to present credits in quantitative analysis, organic chemistry, mechanics and heat, electricity, lenses, comparative anatomy, and either embryology, histology, or cytology. To avoid schedule conflicts as much of this preparatory work as possible should be taken in the Lower Division.

In addition to the above preparatory work the departmental requirements are satisfied by completing any one of the following groups of courses: I. Physics 25 (Modern Physics); Chemistry 141, 142, and 143 (Biochemistry); Physiology 103, 104, 105, one unit each of 106 and 206; five units of approved advanced work in the School of Biological Sciences. (This is the program ordinarily followed by students who are registered in medicine during their senior year.) II. Physics and Chemistry as in Group I; Physiology 103, ten units of 150 (or five of 150 and five of 539), one unit each of 106 and 206; five units of approved advanced work in either the School of Biological Sciences or the School of Physical Sciences. III. Physics and Chemistry as in Group I; Physiology 101, 102, ten units of 150 (or five of 150 and five of 539), one unit each of 106 and 206; five units of approved advanced work in either the School of Biological Sciences or the School of Physical Sciences. Courses taken elsewhere will be accepted in lieu of any of the above to which they are equivalent.

*General Physiology.*—The department has facilities for work in General Physiology in full accordance with the exacting quantitative standards demanded by modern techniques. The equipment is adequate for the study of many of the physico-chemical properties of protoplasm and of its environment. Special attention is being paid at present to oxidation-reduction phenomena. Through the close connection of the department with the Hopkins Marine Station exceptional opportunities are available for the study of problems in which marine plants or animals can be used advantageously.

*Vertebrate Physiology.*—The laboratory is well equipped for the study of the physiology of the higher animal organisms. At present the metabolism of mammals under various experimental conditions is being actively investigated. A colony of rats is also maintained, with cage equipment by which voluntary activity as related to diet, sex, and other conditions is being studied.

*Human Physiology.*—Various problems in human physiology are constantly being investigated. By co-operation with the Department of Psychology the facilities for the study of the special senses, particularly vision and hearing, are unusually complete. For example, the laboratory is equipped with an illuminometer, with all the more important types of phorometers for the measurement of eye muscle balance, with an Ives visual acuity apparatus

and other related instruments. The Barkan collection of works on ophthalmology in the Lane Medical Library makes available a particularly complete representation of the literature of this field.

*Library.*—The Biology library is well supplied with current books and periodicals and has complete sets of all the important physiological journals, as well as abstract journals and indices in related sciences and a full set of the Concilium Bibliographicum cards for physiology. Most of the less common publications are available in the Lane Medical Library.

*Advanced Degrees.*—For the degree of Master of Arts the department will require in general a full year (forty-five quarter units) of advanced work in physiology or closely related fields. It is expected that about two-thirds of this work will be devoted to a special problem whose results are to be embodied in a Master's thesis. It is expected also that the student will be prepared to submit to examination covering such portions of the general field of physiology as are related to the special field of study. For example, a student whose field is general physiology should be prepared for examination in the principles of general physiology. One whose work is in special applications of physiology to mammals or man should prepare to be examined in human physiology.

Candidates for the degree of Doctor of Philosophy must conform to the University requirements as regards minor subjects; for the major in physiology it is expected that the equivalent of six quarters will be devoted in the main to work upon a problem involving original investigation and leading to results which shall be of sufficient importance to justify their publication in physiological journals as well as their presentation in the form of a Doctor's dissertation. Registration for the advanced work will be in Courses 207 and 208.

*The Teacher's Recommendation.*—Programs are offered for students seeking the teacher's recommendation as follows: Teaching major: Elementary Chemistry; Biology, eighteen units, including one of the following: Comparative Anatomy, Vertebrate Embryology, the Biology of Protoplasm, or Histology; Physiology, fourteen units (Course 103, and at least nine units from Courses 104, 105, 150, and 539).

Teaching minor: Elementary Chemistry; Biology, nine units (Courses 1 and 2); Physiology, ten units (Courses 101 and 102).

*Fees.*—Courses 101, 102, $5 each; Courses 103, 104, 105, 208, $10 each.

## COURSES OF INSTRUCTION

**101. Elementary Physiology.**—The structure and functions of the body with especial reference to the mechanisms of external adaptation, namely, muscles, nervous system, and sense organs. Designed primarily for students who are not looking forward to the study of Medicine. Intended to impart a general conception of the relationship of the human body to its environment. Textbook: *The Human Body,* Martin, Advanced Course, Eleventh Edition. Open to Upper Division students and to Lower Division students who have had college courses in Biology and Chemistry.

5 units, autumn quarter (SHAFER) Lec. MWF 10; Lab. ThF 1:05–4:05
*Autumn, 47*

**101S. Elementary Physiology.**—A lecture and laboratory course open to qualified students. The subject matter of Course 101 is covered. Textbook:

*The Human Body,* Martin, Advanced Course, Eleventh Edition. Given only in alternate years.

5 units, summer quarter (FIELD) Lec. MWF 9; Lab. MT 1:05–4:05
*Summer, 16*

**102. Elementary Physiology.**—The structure and functions of the body with especial reference to maintenance, growth, and energy liberation. In this course, special attention is paid to circulation, digestion, excretion, and metabolism. Although designed to offer in connection with Course 101 a survey of the field of human physiology, this course is planned so that it may be taken independently of Course 101. Textbook: *The Human Body,* Martin, Advanced Course, Eleventh Edition. Requirements for admission the same as for Course 101.

5 units, winter quarter (SHAFER) Lec. MWF 10; Lab. MT 1:05–4:05
*Winter, 38*

**102S. Elementary Lectures.**—A course covering the subject matter of Course 102. Given in alternate years.

3 units, summer quarter (SHAFER) [Not given in 1930–31]

**103. Principles of Physiology.**—An advanced study of the fundamental principles of physiology. The course is planned to serve as an introduction to general physiology on the one hand and also to the special physiology of the higher organisms on the other. It is devoted (1) to a survey of the nature and properties of protoplasm; (2) to a study of the relation of protoplasm to the various factors which constitute its environment; (3) to some consideration of the multicellular structure as a factor affecting the physiology of the entire organism and its constituent cells. Textbook: *The Elements of Physiology,* Martin and Weymouth. Prerequisites for majors: quantitative analysis and organic chemistry (biochemistry should precede or accompany the course); college physics; and either comparative anatomy, embryology, histology, or cytology. Advanced students of other departments presenting less than these prerequisites may be admitted on recommendation of their major departments provided their previous training is of a character to enable them to take the course with profit; it is desirable that such training include Biology and Elementary Chemistry.

5 units, winter quarter (MARTIN, BAUMBERGER, FIELD, HALL)
Lec. MWF 8; Lab. ThF 1:05–4:05
*Winter, 68*

**104. Physiology of Maintenance.**—The detailed application to man of the general principles developed in Course 103, so far as they relate to bodily maintenance. The laboratory work is based, as far as possible, on mammals, including the human body itself. Textbook: *The Elements of Physiology,* Martin and Weymouth. Prerequisite: Course 103.

5 units, spring quarter (MARTIN, BAUMBERGER, FIELD, HALL)
Lec. MWF 11; Lab. ThF 1:05–4:05
*Spring, 56*

**105. Physiology of External Adjustment.**—The detailed application of the principles developed in Course 103 to the mechanisms by which in mammals and man the organism is adjusted to its environment; thus comprising a study of the sense organs, the nervous system, and the motor apparatus. Textbook: *The Elements of Physiology,* Martin and Weymouth. Prerequisites as in Course 103 with Physics 3 in addition. Advanced students of other departments may be admitted on the terms stated under Course 103 provided

they present such work in the anatomy of the nervous system and sense organs as will enable them to profit by the course.

4 units, autumn quarter (Weymouth, Field, Hall) Lec. MW 11; Lab. TW 1:05–4:05

*Autumn, 41*

**106. Journal Club.**—An introduction to the utilization of biological literature, including bibliographic methods, abstracting, preparation, and presentation of reports, and critical evaluation of original papers. This course or its equivalent required of candidates for a degree in this department.

1 unit, autumn, *winter, *spring quarters (Weymouth, Field) By arrangement

*Autumn, 10; winter, 6; spring, 1*

**150. Advanced General Physiology.**—Detailed quantitative study of certain of the fundamental principles of physiology. The subject matter varies with the type of problems under way. Each student works on a special topic. The work of the whole laboratory, including the technique and principles involved in each problem, is correlated and extended by assigned reading and by seminar discussion. Offered only when as many as six students enroll. Prerequisites for majors as for Physiology 103; in addition, Physiology 103 or Physiology 101 and 102. Textbook: *The Principles of General Physiology*, 4th edition, W. M. Bayliss.

5 to 10 units, autumn, winter, and spring quarters (Baumberger) By arrangement

*Autumn, 7; winter, 6; spring, 10*

**205. Selected Topics in Neurophysiology.**—Advanced discussion of selected topics in physiology of conduction in the nerve fiber, spinal reflex action, behavior following lesions to the central nervous system, receptor function, etc. Physiology 105, or its substantial equivalent, should precede or accompany this course.

2 units, autumn and winter quarters (Department Faculty, assisted by members of other departments) By arrangement

*Autumn, 6; winter, 3*

**206. Seminar in Physiology.**—A weekly meeting of department faculty, graduate, and properly qualified undergraduate students of this and allied departments, for the presentation and discussion of recent advances in physiology which in the course of a series of years will cover the entire field. Prerequisite for majors: Course 106, or equivalent. Courses 106 and 206 required of candidates for a degree in Physiology.

1 or 2 units, autumn, *winter, and *spring quarters (Weymouth, Hall) By arrangement

*Autumn, 1; winter, 17; spring, 12*

**207. Special Physiology.**—An advanced non-laboratory course open to students who have had one or more Upper Division courses in Physiology. Designed to afford opportunity for the further study of selected subjects in Physiology. The work is planned for the individual student.

1 to 5 units, any quarter (Department Faculty) By arrangement

*Autumn, 3; winter, 7; spring, 12; summer, 2*

**208. Research in Physiology.**—Special problems involving laboratory work. (Department Faculty) By arrangement

*Autumn, 2; winter, 1; spring, 2*

SUMMER QUARTER

**539. Physiology of Marine Organisms.**

5 units, summer quarter ((Michaelis, Baumberger)

*Summer, 2* [Given at Hopkins Marine Station]

## ZOÖLOGY

GEORGE CLINTON PRICE, Professor Emeritus

JOHN OTTERBEIN SNYDER, RENNIE WILBUR DOANE, WALTER KENRICK FISHER, HAROLD HEATH, MARY ISABEL MCCRACKEN, WILLIS HORTON RICH, †CHARLES VINCENT TAYLOR (Biology), Professors
†GORDON FLOYD FERRIS, EDWIN CHAPIN STARKS, FRANK WALTER WEYMOUTH (Physiology), Associate Professors
BARTON WARREN EVERMANN, †RICHARD CRITTENDEN MCGREGOR, †CASEY ALBERT WOOD, Lecturers

The Department of Zoölogy offers courses which are carefully planned and so flexible as to place no limit on the student of ability, while in many cases the needs of individuals are considered.

*Graduation.*—Before graduation in Zoölogy, students must complete Courses 1, 2, 100, 104, 160 (four units), and 541 and 550 at the Hopkins Marine Station, or satisfactory substitutes, together with at least twenty units of additional elective work in the department. Before graduation, a student is expected to have a reading knowledge of German or French, and to have completed one or more elementary courses in Botany, Physiology, Physics, or Chemistry. It will be noted that the requirement involves enrollment for one quarter at the Hopkins Marine Station.

Students who look forward to the study of medicine may take Zoölogy for their major subject and receive the degree of Bachelor of Arts at the close of a four years' course which shall also contain the first year in medicine. Twenty units of work in the department will be required of such students, including Courses 1, 2, 108, and electives.

*Advanced Degrees.*—For graduate study leading to the degrees of Master of Arts and Doctor of Philosophy both material and literature are available in the morphology, embryology, and classification of the principal phyla. The proximity of exceptionally rich collecting grounds on the ocean shore, especially at Monterey Bay, where is located the marine biological laboratory of the University, offers unusual facilities for obtaining material and for the investigation of living forms. The department is well prepared to offer work in Entomology, either systematic, biologic, or economic. The laboratories and libraries are well equipped with apparatus, journals, reprints, and books, and special provision will be made for the needs of individual graduate students.

*The Teacher's Recommendation.*—The Department recommendation for a teacher's certificate in Zoölogy requires the following courses: (Zoölogy as a major) 1, 2, 100, 104, and 541 and 550 at the Hopkins Marine Station, or satisfactory substitutes, and six units to be elected; (Zoölogy as a minor) 1, 2, 100, 104, or satisfactory equivalents.

Majors in Biology who elect Zoölogy as a minor will be required to complete Zoölogy 1, or its equivalent, and certain other courses amounting to fifteen units in all.

*Equipment.*—The collections of the Natural History Museum are exten-

† Absent on leave, 1930–31.

sive in littoral and bathybial forms of the northern and tropical Pacific. There is a full representation of the fishes of North America; extensive series of the deep waters of the Pacific, and large collections from the West Indies, Hawaiian Islands, Samoa, the Philippines, Bering Sea, Japan, and the coasts of Mexico and Central America. The museum contains also a large representation of the reptiles, batrachians, birds, and mammals of the West. The collection of marine invertebrates is rich in echinoderms and crustacea, and contains a good working nucleus in other groups. The series of deep sea forms is especially valuable. The entomological collections contain authoritatively named specimens in most of the orders of insects. There are available as a basis for research certain unusually extensive collections in special groups, notably the Coccidae, the collection of which is one of the most important in existence, the Mallophaga, Anoplura, and other ecto-parasitic groups, and in the Aphids, Diptera, etc. There are also large series illustrating the development, habits, and adaptations of insects, particularly those of economic importance.

A small experimental orchard and an apiary and a lathhouse also add to the opportunities to do practical outside work.

*Laboratory Fees.*—Courses 1, 2, 105, 108, each $5; 100, 103, 104, 106, 107, 150, 153, 154, 155, 156, 157, each $3; 101, 102, 158, each $.50.

## COURSES OF INSTRUCTION

[Courses 1, 101, and 102 may be taken without previous preparation in Zoölogy.]

**1. General Zoölogy.**—An introduction to the natural history, morphology, and physiology of animal life. Lectures, laboratory, and field work. This course is prerequisite to all other courses in the department except where otherwise stated. (See also its equivalent, Marine Zoölogy [Zoölogy 511], under Hopkins Marine Station.)

5 units, autumn and *spring quarters (Rich) MTWThF afternoons
*Autumn, 44; spring, 19*

**2. Comparative Anatomy of the Vertebrates.**—A detailed examination of vertebrate morphology, including dissection of representatives of the several classes of vertebrates, with comparative studies in vertebrate osteology, the nervous and circulatory systems. Not open to first-year students in winter quarter.

5 units, winter and *spring quarters (Starks) MTWThF afternoons
*Winter, 45; spring, 18*

**100. The Vertebrates.**—A general course in the classification of vertebrate animals, with studies in their habits and the geographical distribution of species. The course is largely devoted to birds. It includes field excursions, and observations of live animals in the laboratory. Open to all students.

5 units, spring quarter (Snyder) MTWThF 1:15–3:45
*Spring, 13*

**101. General Entomology and Insect Adaptations.**—A course of lectures and demonstrations. Open to all students.

2 units, autumn quarter (Doane) Lec. TTh 9
*Autumn, 79*

**102. Insects and Disease.**—A discussion of the insects that cause or disseminate some of the diseases in man and the domestic animals. Lectures and demonstrations. Open to all students.

2 units, winter quarter (Doane) TTh 9
*Winter, 155*

**103. Arthropod Zoölogy.**—A general survey of the arthropoda as an introduction to the study of insects.
3 units, winter quarter (FERRIS) [Not given in 1930–31]

**104. Classification of Insects.**—This course includes laboratory and field work, and is intended to give the student a basic knowledge of the local insect fauna and its relation to its environment, and to acquaint him with the methods and principles of systematic entomology.
5 units, spring and *summer quarters (MCCRACKEN) Forenoons by arrangement
*Spring, 12; summer, 2*

**105. Morphology of Insects.**—A study of insect structures and their significance, involving an introduction to the technical methods of the entomologist.
5 units, autumn quarter (MCCRACKEN) Forenoons by arrangement
*Autumn, 10*

**106. Economic Entomology: Forest Insects.**—A study of the insect enemies of forest and shade trees. The course includes field, laboratory, and bibliographic work. Prerequisite: Course 104.
3 units, autumn quarter (DOANE) MWF afternoons
*Autumn, 2*

**107. Economic Entomology: Orchard and Garden Insects.**—A study of the principal injurious and beneficial insects of the orchard and garden. Includes field, laboratory, and bibliographic work, and occasional lectures. Prerequisite: Course 104.
3 units, spring quarter (DOANE) MWF afternoons
*Spring, 7*

**108. Mammalian Anatomy.**—A detailed study of one or more systems of organs of the cat. To be preceded by Course 2.
5 units, autumn, *winter, and *spring quarters (STARKS) MTWThF afternoons
*Autumn, 21; winter, 1; spring, 6*

**150. Vertebrate Zoölogy.**—Special studies for advanced students in the fields of herpetology, ornithology, or mammalogy; practice in museum methods, in field observations, and in the collection and preparation of specimens with data.
2 to 5 units, autumn, winter, and spring quarters (SNYDER) By arrangement
*Autumn, 8; winter, 15; spring, 5*

**151. Principles of Nomenclature.**—A series of lectures dealing with the principles of biological nomenclature and intended to meet the needs of students from any of the biological departments.
1 unit, spring quarter (FERRIS) [Not given in 1930–31]

**153. Special Problems in Economic Entomology.**—The student is here given an opportunity to make a more or less detailed study of some insect or group of insects of economic importance. Field, laboratory, and bibliographic work are included.
3 to 5 units, winter and spring quarters (DOANE) By arrangement
*Winter, 9; spring, 3*

**154. Special Problems in Entomology.**—Studies in the classification, structure, or biology of certain groups of insects, such as the Coccidae and the various ectoparasitic orders, with particular reference to the methods of research in such groups.
3 or more units, autumn, winter, or spring quarter (FERRIS) [Not given in 1930–31]

**155. Special Problems in the Life History, Morphology, or Taxonomy of Insects.**—An introduction to research methods in the field of entomology.

Problems are assigned with reference to the student's special interest or fitness.

3 to 5 units, autumn, winter, and spring quarters (McCracken) By arrangement
*Autumn, 1; winter, 7; spring, 4*

**156. Special Courses in Vertebrate Zoölogy.**

*a*) Primitive chordates; a study of Amphioxus, the tunicates, and the lampreys.

*b*) Comparative osteology; modifications of the vertebrate skeleton.

*c*) The fishes; special problems in the morphology of fishes, or in the review and classification of groups of West Coast fishes.

These courses are arranged to meet the needs of students who are qualified to carry on independent work.

3 to 5 units, autumn and *spring quarters (Starks) By arrangement
*Autumn, 2; spring, 5*

**157. Ichthyology.**—An introduction to problems relating to the life history of fishes, the discrimination of species, or a critical examination of some group.

3 to 5 units, winter and spring quarters (Snyder) By arrangement
*Winter, 8; spring, 1*

**158. Bionomics.**—A survey of facts and principles bearing upon organic evolution. Primarily for advanced students. Assigned reading and reports.

2 units, winter quarter [Not given in 1930–31]

**159. Problems in Fishery Resources.**—A study of selected biological problems encountered in the investigation of fishery resources, especially growth and related questions involving statistical treatment. Weekly conferences may be supplemented by illustrative work to meet the needs of particular students.

1 to 5 units, autumn, *winter, and spring quarters (Weymouth, Rich) By arrangement
*Autumn, 16; winter, 11; spring, 4*

**160. Journal Club.**—Open to senior and graduate students.

2 units, autumn and winter quarters (Snyder) By arrangement
*Autumn, 18; winter, 24*

**201. Research.**—Prosecution of special studies by advanced and graduate students. The work may be done either in the University or at the Hopkins Marine Station.

(Members of the Department) By arrangement
*Autumn, 6; winter, 9; spring, 10*

# GRADUATE SCHOOL OF BUSINESS

Willard Eugene Hotchkiss, Dean
George William Dowrie, Boris Emmet, †Paul Eugene Holden, Jacob Hugh Jackson, Eliot Grinnell Mears, Edward Kellogg Strong, Jr., Professors
Dexter S. Kimball, Acting Professor (Autumn Quarter)
Theodore John Kreps, Associate Professor
Vernon Dale Wickizer, John Metts Willits, Instructors
Henry Rand Hatfield, Earl Dean Howard, Henry Plimpton Kendall, James Reed, Lecturers
Lillian Caroline Owen, Secretary

## OBJECTIVES OF GRADUATE BUSINESS TRAINING

The purpose of the University and of the business men who gave their support to the establishing of the Graduate School of Business was to set up a school in which selected men and women might be educated for business. The chief concern of the School is to prepare students who have native ability, a good undergraduate record, and a capacity and willingness to do hard work, for effective service in business and to develop habits of thought that make for continuing growth. Among the essential objectives in the education of students who intend to make business a career the following are stressed:

1. Appreciation and grasp of human and material factors that make up the subject matter of business.
2. Training in handling records, tools, and technical aids by means of which business is administered and controlled.
3. Mastery of basic principles of management.
4. Practice in adapting and applying established principles to meet the requirements of particular business situations.
5. Acquiring ability to make decision and to take action based on intelligent assembly and analysis of facts.

## QUALIFICATIONS OF THE BUSINESS EXECUTIVE

A business executive, using the term in the only sense that is acceptable as an objective of university training, is a person who does important discretionary and directive work—work that is potentially creative. Such work requires today a range of knowledge and understanding that cannot be acquired without schooling in the methods and processes of scientific analysis. Ability to locate facts and to sift the essential from the non-essential, and the habit of basing action on a careful analysis of essential data, are qualities which it is peculiarly the province of a graduate school to develop.

At the same time, it must be recognized that analysis is unproductive unless it leads to decision and action. Wise and timely action is of the essence of executive leadership. The School aims therefore constantly to confront the student with questions of business policy and procedure that call for positive action upon the facts which investigation brings to light.

† Absent on leave, 1930–31.

### THE UNITY OF MANAGEMENT

Business schools came into the system of higher education at a time when specialization in professional study was at its height. It was natural therefore for the scientific study of business to be directed largely toward the functional divisions of business—accounting, production, finance, marketing, advertising—rather than management as a whole. It is essential in the further study of business that especial emphasis be placed on management as a unifying and co-ordinating force.

Throughout its program of study the Graduate School of Business emphasizes the essential unity of management. Without neglecting the problems that arise in the several divisions of business, effort is made to develop such habits of mind that students instinctively will think of a business as a unit, and work out the solution of problems with the requirements of the whole business in mind.

### INDEPENDENT WORK

The student's work in the School has been organized with a minimum of mechanics and regimentation. As far as possible, principles of management are developed in connection with actual business situations in which the student is thrown on his own resources. Instruction is addressed to selected graduate students, and it is expected that their previous training will have prepared them to work under suitable supervision with a large degree of independence. Achievement depends on the capacity and the effort of the individual.

### SUMMER EMPLOYMENT

It must be recognized that the university alone cannot supply that capstone of discipline—actually doing the job. A person who advances through successive positions in a going concern secures a kind of discipline which, though intangible, is nevertheless essential.

However clear the case may be for making business the subject of professional study, it is obvious that replacing apprenticeship with systematic schooling operates to postpone entry into business and to widen the gap between preparation and practice. The period of orientation, even for superior graduates of professional schools, is one of great difficulty and hazard.

In setting up a program for professional business training it appears worth while to provide some means by which a reasonable amount of experience can be supplied before graduation. The student, therefore, generally spends the summer between his two years in the School in supervised work either as an employee of a going business concern or in connection with some enterprise which requires the practical application of management principles. Completion of the course involves doing this supervised work in a manner acceptable both to the executives of the particular business and to the authorities of the School.

### CONTACTS WITH BUSINESS

It is essential for schools of business to draw much of their material from the reservoirs of educational knowledge to be found in business itself. In order that these reservoirs may become accessible, it is important that the men who teach business in the universities work in close co-operation with responsible business men.

The auspices under which the School was founded furnish a setting in the business community that is of great value in giving access to concrete problems which business men are handling. Valuable data for teaching purposes have been placed at the disposal of the School by various concerns engaged in manufacturing, selling, co-operative marketing, and management consulting service. Opportunities for faculty and student participation in projects involving economic research and analysis have been opened up through contact with business and industrial groups who have indicated their desire to submit some of their problems to the School for study.

As an integral part of the program of the School, arrangements are made for students to inspect important industrial and commercial plants in the vicinity. Plant visits are co-ordinated with work on the campus by requiring students to discuss in written reports typical business problems of each plant visited. Business concerns have shown unusual willingness to co-operate with the School in this respect, and executives have responded generously when asked to discuss current business problems either at plants or at the University.

## PREPARATION AND ADMISSION

Persons who hold a Bachelor's degree from an approved college or university may become candidates for admission. New students are admitted at the beginning of the autumn quarter only.

College students who are looking forward to becoming candidates for admission to the Graduate School of Business are advised to direct undergraduate study toward developing powers of accurate observation and correct habits of thought, both in respect to relatively exact data as found in the laboratory sciences and to the more contingent data of the several social sciences.

In considering the relative merit of applicants, more attention will be given to the quality of work done and to the evidence of promise shown during the student's undergraduate course, than to the particular subjects studied.

The credentials required are: (1) Personal application for admission to the University with graduate standing, including application fee of five dollars; (2) special application for admission to the Graduate School of Business; (3) official transcript of all college work completed including certificate of degrees received; (4) statements of personal qualifications on blanks furnished by the University.

Special regulations governing admission of women to the University make it necessary for women candidates for admission in October to file credentials by May 1.

Inquiries concerning the Graduate School of Business and requests for application forms should be addressed to the Secretary of the School.

[Students are strongly advised not to depend upon outside employment while here for any considerable part of their total expense. Experience has shown that full-time attention to the work of the School is necessary for the best results. It is much better to postpone entrance than to depend upon outside earnings while here.]

## FEES AND EXPENSES

The Application Fee for all candidates for admission to the University, and for all registered students applying for admission to the Graduate Division, is $5, payable at the time of application.

The Tuition Fee for all students in the Graduate School of Business (except those registered in the University prior to the autumn quarter of 1930) is $130 per quarter. Students previously registered may pay at the rate of $115 per quarter until the autumn quarter of 1933, when the increased fee will apply to all students.

The Community Fee for all students is $13 per quarter. This fee covers the privileges of the gymnasia, athletic grounds, hospitals, the Stanford Union or Women's Clubhouse, and membership in the Associated Students.

A diploma fee of $5 is charged all persons receiving degrees from the University, except those who have enrolled for the first time in the graduate or undergraduate divisions of the University since January 1, 1927.

The cost of a year's work (including tuition, books, board and room, and necessary incidental expenses, but not cost of clothing) is between $900 and $1,200, the variation being due to the tastes and habits of the individual. One of the incidental expense items, the cost of having reports typed, can be saved by students who do their own typing. Students who do not have their own typewriters can rent them at reasonable rates.

## DEGREES

### Master of Business Administration

The degree, Master of Business Administration (M.B.A.), will be conferred, upon the recommendation of the Committee on Graduate Study, when the student has satisfied the requirements laid down by the faculty of the Graduate School of Business.

### Doctor of Philosophy

Students whom the faculty deem qualified to undertake independent, scientific research in business, and who are preparing for teaching or research positions, may become candidates for the degree, Doctor of Philosophy. Candidates for this degree will conform to the general requirements as set forth in the *Information Bulletin.*

## COURSE OF STUDY

The course of study leading to the degree of Master of Business Administration covers a minimum period of two school years in addition to required summer work. It is organized so as to include the following types of discipline:

A. Analyzing certain economic, geographical, legal, psychological, scientific, and technical aspects of management.

B. Developing an understanding of general management problems from the standpoint of a co-ordinated business unit. The first year's work under this heading centers around principles of organization and management which govern the structure and relationships within a business enterprise. The second year's work is concerned with major questions of business policy.

C. Acquiring a grasp of the chief functional or departmental fields into which business is divided for purposes of effective administration. Of these, accounting and finance are given attention during the first year, while production and marketing are considered during the second year.

D. Specializing in a particular field.

## FIRST-YEAR PROGRAM

### Aspects of Management

*Economic* (Business Economics, Business Statistics, Economic and Statistical Analysis) : This section of the work affords training in the analysis of the economic factors which affect business policy and practice. An introductory treatment of the economic background of business develops the principles of economics with particular reference to their bearing upon the problems of management. The essentials of statistical method, as an analytical tool of management, are studied in a sequence of laboratory exercises which emphasize the use of numerical and graphic analysis in selected business problems. The student is then ready to enter upon a fuller examination of the economic aspects of management. He learns to consider the problems of business from the quantitative point of view, and to place them in a broad economic setting. He is taught to evaluate the significant economic elements in particular business situations, and to trace the relation of important factors in general business and particular industrial conditions to costs, profits, business stability, markets, and consumer demand.

Autumn and winter quarters (Dowrie, Kreps) By arrangement
*Autumn (Economics), 39, (Statistics), 46; winter (Economics and Statistical Analysis), 40*

*Geographical:* A survey is made of major business problems from the geographical viewpoint. Underlying factors which receive consideration are agricultural production and marketing, timber supply, minerals, energy resources, water supply, fuels, climate, population, markets, transportation facilities, financial centers, labor supply, and the increasing distance between production and consumption areas. Emphasis is placed upon problems of agricultural and industrial development.

Spring quarter (Mears) By arrangement
*Spring, 35*

*Legal:* An understanding of the legal aspects of management problems is essential if the business executive is to proceed wisely and safely in formulating and executing policy toward owners, customers, employees, and the public. Consideration is given, therefore, to basic legal concepts, principles governing legal responsibility for business transactions, unfair practices and restraint of trade, and fundamentals of public policy toward business.

Winter and spring quarters (Rathbun) By arrangement
*Winter, 24; spring, 26*

*Psychological:* The solution of many business problems is dependent upon what others want and can or will do under certain conditions. The student is introduced, first, to some of the natural limitations of man as seen in learning and retention of skill and knowledge, and in fatigue from work, and also to the fact that human beings differ widely in every respect. Emphasis is placed not only upon information but also upon methods of ascertaining such information and of utilizing it in business. Second, consideration is given to the desires and aspirations of man which must be taken into account in adjusting human relations in business, particularly the relationship of the executive with his subordinates, his co-equals and superiors, and their relationship with customers, investors, and the general public. The psychology of selling and advertising, the determination of what others want and how to meet their demands, and methods of measuring the success of resulting business policies are studied.

Spring quarter (Strong) By arrangement
*Spring, 35*

*Scientific and Technical:* Most major problems of management involve certain scientific and technical aspects. It is the purpose of this study to treat various engineering and cost-accounting phases of management with which the general executive should be familiar.

The work in engineering deals with fundamentals of mechanical drafting, machine design, important mechanisms, machine shop, forging and foundry practice, metallurgy and heat treatment, material and equipment specifications and tests, building construction, lighting, heating and ventilation, power generation and transmission. While only the most elementary treatment is given to these phases, managerial connection and interest is heavily emphasized.

The objectives of the engineering work are: to orient students with no engineering background in the technical aspects of factory management; to impress them with the realization that engineering phases are involved in most major business problems; to bring about a recognition that, without a real appreciation of the engineering aspects of business problems, important executive decisions may be made with disastrous results; to emphasize the need for co-ordination between general executives and staff technicians; to equip students with a knowledge as to when an executive should call in or otherwise avail himself of technical talent and assistance; to indicate how and where engineers can best be utilized in industry; and to afford an introduction to the second-year work in Operating Problems of Management.

In cost accounting the student studies the various elements of cost, the standard practices in the allocation of such costs to product or services produced, and the variety of the problems which confront the executive who desires to be well informed about the costs of his manufacturing operations. The work aims to develop a basis for sound co-operation between managers and technical experts.

(Holden, Jackson) [Not given in 1930–1931]

## Business Organization

The central management of a business has the task of knitting departments together and of keeping the business functioning as an organic whole. Management determines the common ends toward which effort shall be directed and maintains co-ordination between departments.

Study is made of the way management is organized, of the way line, staff, departments, and functions in a highly organized business co-operate in making and executing decisions, and of the way authority is delegated and controlled. Attention is given to the influence of historical and personal considerations in determining organization policy and procedure, especially in cases in which concerns are undergoing reorganization.

Emphasis is placed upon the applications and limitations of standardization, upon means of preserving flexibility in an organization, and upon ways of making provision in the structure of a business for its orderly development and growth. Distinction is drawn between scientific and rule-of-thumb methods of dealing with organization problems. The aim is to foster a habit of regarding business problems primarily from the viewpoint of general, as distinguished from divisional, management.

This work includes study and discussion of typical business problems of the industrial and commercial plants which students visit.

Autumn and winter quarters (Emmet, Strong) By arrangement
*Autumn, 51; winter, 43*

### Accounting and Financial Problems of Management

Because of their fundamental importance and universal usage, a fairly thorough study of accounting and finance is made during the first year; the work of the second year may thus be undertaken with a sound understanding of the relation of the financial and accounting activities to other major activities of an enterprise.

During the first quarter emphasis is laid upon the fundamental and universal principles that accountants must constantly use in their work. Such principles are also fundamental to the business manager who is to get the most out of the work of the accountant. The development of the bookkeeping mechanism, the principles of labor-saving devices and of accounting controls, and the preparation of statements of various kinds constitute the work. The aim of this section of the work is to develop accounting as a tool of analysis and control, rather than as a technical specialty.

The accounting problems considered include valuation and depreciation, the construction and interpretation of financial statements, stock control, systems of internal check, and budgetary control of financial and operating matters. Special accounting and financial problems with reference to reorganizations and other matters are also studied.

On the financial side, attention is given to the factors that determine financial policies, such as the amount of investment needed, character of security issues, requisite working capital, establishment and support of lines of credit, and dividend and investment policies.

Autumn, winter, and spring quarters (Dowrie, Hatfield, Jackson)
*Autumn, 40; winter, 43; spring, 36* By arrangement

### Report Writing

The importance of using correct and effective English in all written reports is stressed. In order to bring about the use of better English, and to develop clarity and directness of expression, certain reports are examined and criticized from this point of view. Students whose construction or style is unsatisfactory are required to correct such deficiency during the first year.

## SECOND-YEAR PROGRAM

### Operating Problems of Management

The scope of the work in operating problems of management is suggested by the following list of topics which are considered: present-day industrial tendencies, scientific management principles, simplification and standardization, plant location, plant layout, plant design and construction, plant engineering, production control, stores control, tool control, labor control, wage control, non-wage incentives, classification and symbolization, forms and reports, office management, purchasing, shipping and traffic, and co-ordinated executive control.

Industrial management is considered in generic terms. Particular emphasis is given to the universal application of the principles of scientific management and of the foregoing phases of the subject to banks, department stores, hotels, and other commercial enterprises. Attention is directed to the fact that these same principles and practices are adaptable to the small business as well as to large concerns. Constant endeavor is made to develop appreciation of the philosophy and the attitude of mind underlying scientific management. Forms, charts, formulas, and other mechanisms of scientific

management are presented as tools useful in its functioning and not as its substance.

To summarize, the aims and purposes of this work may be said to be a thorough grounding in the scientific principles of management; a recognition of the uses and limitations of mechanisms and tools of management; an appreciation of the universal application of the principles and practices of scientific management; and an acceptance of the need for an orderly, logical, analytical, and systematic handling of business problems.

Autumn and winter quarters (Howard, Kendall, Kimball, Reed) By arrangement
*Autumn, 26; winter, 21*

### Marketing Problems of Management

Marketing is the most complex of all the management activities, and the most diverse in its contacts with other human and business undertakings. It involves economics, geography, psychology, finance, accounting, and business forecasting as well as a wide range of physical and mathematical sciences. Successful marketing enterprises are those which have best taken into account the significance of these manifold human factors. In spite of their complexity, however, the tasks of marketing are the relatively simple ones of buying and selling at a profit.

Back of the marketing history of individual concerns lie definable principles, which, if once mastered, take from buying and selling much of the uncertainty and mystery with which they have been surrounded. Sales planning, sales management, sales-quota establishment, market-anticipation, the gauging of seasonal and secular trends in prices, and advertising, all contain many factors of tangible certainty. The recognition of these, and familiarization with their customary behavior, go far toward making the tasks of marketing comparable in definiteness with the other aspects of management.

The work in marketing problems of management is designed to familiarize the student with the factors of which marketing problems are composed, and the forms which these problems commonly assume. Raw materials, equipment, and consumers' goods flow from production to consumption ceaselessly, and the mechanism for their transmission adjusts itself as best it may to changing conditions. The functions of merchandise distribution remain permanent, although they may vary in form. The purpose of the study of marketing problems is to discover those ways in which developed fields of scientific knowledge can help the individual business man adjust his management policies to the market conditions of his own time and place.

Autumn and winter quarters (Emmet, Mears) By arrangement
*Autumn, 21; winter, 21*

### Business Policy

The growing complexity of modern business, even on a relatively small scale, has shown the essential unity of management problems, and the whole program of the School is designed to make clear the need for co-ordinating all fundamental activities of a business in terms of inclusive, consistent policy. During the last quarter in residence, therefore, a considerable portion of the student's time is devoted to unifying the chief results of previous study by considering problems of general policy which necessitate bringing different management factors within the scope of a unified policy. This work is largely individual, under the problem method, and as far as practicable is related to the work the individual student is doing in his specialized field of work.

Spring quarter (School Faculty) By arrangement
*Spring, 22*

### Specialized Work

Substantially one-third of the student's time during the second year is available for specialized work which involves the analysis of problems with which business men have to deal. This is the most advanced section of the Graduate School of Business curriculum. For carrying out this program of specialized work two alternative plans are offered.

The first plan permits the student to elect a field of study each quarter and to concentrate his attention on problems in that field under the immediate direction of the appropriate members of the faculty. Seminars for the discussion of these problems will be held.

The second plan permits the student to concentrate his efforts on a particular problem under the direction of one or more members of the faculty. Only those students who are especially interested in a suitable problem which, in the judgment of the faculty, can be undertaken to good advantage will be permitted to follow this plan. It is expected that this study will be carried on by the student with a large degree of independence throughout the year. Individual conferences will be held from time to time.

In special cases, in order to meet the needs of individual students, a combination of the two plans may be permitted.

Autumn, winter, and spring quarters (School Faculty) By arrangement
*Autumn, 25; winter, 23; spring, 22*

#### PLAN ONE

During the autumn quarter students may specialize in Personnel or in Accounting.

*Problems in Personnel:* The work in personnel is concerned with the analysis of problems involved in building up business organizations and developing efficient relationships between the members of such organizations. Use is made of the mechanisms of personnel control only to the extent that these are essential to the development and administration of personnel policies in the particular concerns studied.

*Accounting:* The work in accounting consists of advanced problems in industrial and financial accounting. The purpose is to present a picture of the scope and variety of the problems which confront (*a*) the executive who desires to be well informed about his costs and accounting operations, (*b*) the accountant whose duty it is to supply that information. The correct interpretation of such accounting data is emphasized.

During the winter quarter students may specialize in Financial Management or in Business Forecasting.

*Problems in Financial Management:* The work in financial management is directed toward developing a capacity to analyze management problems having to do with the financing of enterprises, issuing of securities, the making of investments, the handling of credits, and other problems in the field of finance.

*Business Forecasting:* The work in business forecasting is directed toward developing a capacity to select the most significant data for the purpose of business forecasting, to work out the technique of manipulating such data so as to obviate erroneous conclusions, to indicate the extent and nature of the non-statistical information essential for guiding the forecaster, and to develop in general a critical attitude toward the sort of mass data upon which business forecasting is based.

During the spring quarter students may specialize in Distribution or in Management Control.

*Advanced Problems in Distribution:* The purpose of the work in distribution is to give students an opportunity to study some of the important changes that are taking place in the field of distribution and the efforts that are being made to develop scientific methods of analysis corresponding to those that have been introduced in the field of production. The specialized work under this caption is intended to carry students into more advanced and difficult problems of analysis than those which can be covered in the general work in marketing.

*Special Problems in Management Control:* The objective of the work in management control is to study problems of control in particular business concerns in such a way as to develop the ability of the student to exercise a co-ordinating function in relating the problems in different divisions of the business to each other and to the major objectives to which the business as a whole is directed.

PLAN TWO

The following paragraphs, which are not intended to be exhaustive, will indicate the general character and range of subjects available for individual study:

*Accounting:* Advanced individual work in the principles and procedures of accounting is offered for those students who are interested in the various problems of the practicing public accountant or in the numerous problems of accounting control as viewed by the treasurer, comptroller, or auditor in charge of the accounts of a commercial or industrial concern. The specific fields of accounting activity to be treated are determined largely by the needs of the students. Some of these major activities include auditing; investigations for refinancing, for the purchase or sale of a business, or for the determination of profits; the devising and installation of cost and financial accounting systems; budgeting and organization for accounting control; and the preparation of statements and reports for stockholders, creditors, and the business executive. Actual problems are made the basis for this work.

*Finance:* Advanced individual work in finance may be concerned with some phase of one of the following fields: credit extension in banking, mercantile and industrial enterprises; commercial banking policies; international banking and exchange; investment analysis; the financial problems of various types of business undertaking—industrial, commercial, agricultural; investment banking policies; real estate finance; federal reserve policy; and the financing of organized speculation.

*Industrial Management:* The student who wishes to do advanced individual work in industrial management may center his attention on one or more of the important phases of the subject, such as production control, plant engineering, purchasing, or office management; he may concentrate on the various aspects of plant management in their specific application to some particular type of industry, e.g., food products, metal trades, clay products, wood-working, textiles, construction, and public utilities; or he may devote his efforts to an intensive study of some significant problem of factory operation as yet unexplored.

*Marketing:* Advanced individual work in this field may be elected by students who have shown ability to pursue individual study involving field

work in connection with going business organizations. The full and friendly co-operation extended by business concerns, and the business connections established by members of the faculty furnish concrete problems for individual study by properly qualified second-year men. Suitable problems include such items as market surveys of Pacific Slope territories; the relations of Coast distributing concerns with manufacturers situated elsewhere; the stock planning and market control methods of wholesalers and retailers; the location problems of chain stores; the marketing methods for Pacific Coast raw materials; and the nature of advertising and sales management problems in this region.

*Personnel:* Advanced individual work in this field provides an opportunity for students to develop a comprehensive understanding of personnel policy, after surveying the activities usually grouped under the heading of personnel work and considering the effect of various management policies upon human efficiency. The objective is not merely to handle labor effectively, but to develop optimum human relationships within the entire business organization and between it and customers and the general public.

[Subjects for specialization selected by students in recent years have been: The Bank of Italy and the Branch Banking Question; Industrial Management Survey of the Stanford Laundry; Personnel; The Advantage of Standardized versus Unstandardized Goods; The Building and Loan Movement in California; Survey of American Investment Trust Organization and Management; A Critical Study of the Possibilities of the Co-operative Marketing Movement as Applied to Territory Wools; Pacific Coast Outlets for California Fresh Fruits; The Chain Drug Store Development on the Pacific Coast; A Study of Chain Department Store Stock Planning Methods and Practice; A Critical Study of the Chain Store Movement from an Investment Standpoint; Foreign Trade Methods in the San Francisco Bay Region; The California Oil Industry of Today; Co-ordinated Executive Control; Control and Analysis of Sales Costs; Commercial Aviation; The Application of Modern Management Principles to Agriculture; The Age Problem in Unemployment; A Study of the Purchasing Procedure of a San Francisco Manufacturing Company; The Application of Modern Management Principles to Education; A Study of the Problems of Internal Transportation of a California Manufacturing Company; A Study of Consumer Demand for Ice Cream; The Cost of Handling Eggs over City Delivery Routes; Gasoline Service Station Costs and Operations; Life Insurance; An Analysis of the Investment Possibilities of the Paper Industry; Recent Changes in the Composition of Bank Portfolios; Financial Problems of the Chemical Industry; The International Telephone and Telegraph Company; The Automobile Industry.]

# SCHOOL OF EDUCATION

Ellwood Patterson Cubberley, Dean
Dorothy Putnam, Secretary
Hazel Bernice Dillon, Assistant Secretary
Margaret S. Wells, Librarian

The School of Education is one of the professional schools of the University, first organized by the Trustees of the University in 1917, and further organized in 1927. It has control of matters relating to the professional preparation of teachers and school officers within the University, and of the offering of elementary and advanced courses in Education. The School is at present organized into four divisions, as follows:

I. The Division of Education
II. The Division of Educational Psychology
III. The Division of Teacher Training
IV. The Division of Graphic Art

All courses or programs of study offered as a Teaching-Major or a Teaching-Minor by any department or school of the University, or any grouping of courses from different departments or schools intended to prepare students for teaching, also lie within the control of the School of Education.

The members of the faculty of the School of Education are listed under the different divisions.

## LINES OF WORK OFFERED

The School of Education offers eight main lines of work:

1. Courses of a general nature on the history, theory, function, financing, and administration of public education, intended in part as information courses for the general university student and without reference to the work of teaching. Course 130 is recommended as the first course for such students, and Courses 133, 165, 175, 180, 190, and 251 are suggested as further courses.

2. Courses intended to assist other departments in preparing their students for certification to teach in schools in California. All such students should confer with the Secretary of the School of Education as to courses, but Course 130 is required for all forms of teaching certificates of all candidates without teaching experience, and Courses 133 (or 165) and 180 are also recommended, if the candidate has not had experience in teaching. Candidates with teaching experience may make certain substitutions, and should consult members of the department as to desirable courses to include. Course 195 is required of all candidates for the junior high school and for all forms of the secondary teacher's recommendation, under the regulations of the California State Board of Education, as are Courses 201 and 202, if the candidate has not had previous experience in teaching. Courses 201 and 202 also are required for all forms of California certificates. Teachers' methods courses (204–224) are expected to be included when offered in the subjects which the student expects to be recommended to teach. (For a more detailed statement as to requirements for all types of California certificates, see the *Announcement of the School of Education.*)

3. Courses for the preparation of teachers of drawing for the public schools, and for the general training of college students in artistic perception and graphic expression. (See Division of Graphic Art, page 247.) Students may enroll as prospective majors in this division, beginning with the freshman year.

4. An Upper Division course leading to the Bachelor's degree in Education (see page 227), and intended for those expecting to do further work in Education. Teachers of experience, and graduates of normal schools, teachers' colleges, and other teacher-training institutions, will be accepted as major students in Education when they have attained to at least junior standing. Others, lacking such experience or training, may be accepted as major students, each case being considered separately. For graduate work, experience in teaching is not a prerequisite, though Practice Teaching should be taken as an additional requirement.

5. Eight graduate curricula, each leading to the degree of Master of Arts in Education, and directed toward preparation for the following lines of professional service:

*a*) Secondary-school Teacher
*b*) Elementary-school Principal
*c*) Secondary-school Principal
*d*) School Supervisor
*e*) School Superintendent
*f*) School Counselor
*g*) Director of Research
*h*) Teacher of Education

(For an outline of each curriculum, see the *Announcement of the School of Education.*)

6. Advanced graduate work for major students who are candidates for the degree of Doctor of Education, and intended to give special preparation to: (*a*) those who desire to prepare for supervisory or administrative positions in the public schools, elementary or secondary, (*b*) those who desire to become teachers of Education in normal schools or colleges, and (*c*) those who desire to become master teachers in subject-matter lines in secondary schools, junior colleges, or colleges. (For a statement of requirements see *Announcement of the School of Education* and pamphlet on Advanced Degrees in Education.)

7. Advanced graduate work for major students in Education working either toward or without reference to the Doctorate, as well as for students in other departments or schools desirous of making Education a minor for the degree of Doctor of Philosophy, and intended to give special preparation to: (*a*) those who desire to prepare to direct research work in training schools and public school systems, and (*b*) those who desire to become teachers of Education in normal schools or colleges and prefer the Ph.D. degree. (For a statement of requirements, see the *Announcement of the School of Education* and pamphlet on Advanced Degrees in Education.)

8. Courses and research work, given in connection with the Division of Educational Psychology and the Department of Psychology, in the psychology and pedagogy of exceptional children. Two lines of work are offered in this field: (*a*) elementary courses designed to give prospective superintendents and principals a general acquaintance with the problems of special

education, and (*b*) research courses for the advanced student who looks forward to work as clinical psychologist in the public schools or institutions for defectives or delinquents. The Dr. C. Annette Buckel Foundation, supplemented by additional support from the Board of Trustees of the University, has provided for a "research fellowship in the psychology and pedagogy of backward children." A "research fellowship in the study of exceptional children" has also been provided. (See Department of Psychology.)

## LIBRARY AND PRACTICAL FACILITIES

The general University Library contains the important recent books, files of the more important educational magazines, both American and foreign, and a collection of early American educational magazines and reports. The special library of the School, consisting of about 12,000 bound and 12,500 unbound volumes, contains one of the most complete collections of American state and city school reports to be found in the United States, the library ranking probably third in this respect. It is also rich in old college and normal school catalogues and textbooks, of much historical value. The collection of old and present-day school textbooks is also large and valuable.

In practical facilities the School of Education has good working connections with the State Teachers College at San Jose, and with the public schools of the immediate vicinity. For more important studies by advanced students the large city school systems in the vicinity of the University can usually be made available.

The School also has good working connections with the Department of Psychology, by means of which laboratory facilities for research are fully available to all who need them.

## SUMMER QUARTER

The summer quarter in the School of Education has been shortened so that work may be completed two weeks before the end of the regular quarter. The work is condensed and each course covers a full quarter of work. The student in Education is limited to 15 or 16 quarter units of credit.

## DEGREES OFFERED

Courses leading to the degrees of Bachelor of Arts and Master of Arts are offered under Divisions I, II, and IV of the School of Education, and the degrees of Doctor of Education and Doctor of Philosophy under Divisions I and II. For the requirements for each degree see statements given under the divisions, and the *Announcement of the School of Education* for a more detailed statement.

## FELLOWSHIPS

In 1919 a Teaching Fellowship in School Administration was founded by joint action of the Board of Trustees and Professor Cubberley, and in 1924 a second fellowship of the same type was created by similar joint action. Each fellowship pays $500, and these are ordinarily awarded only to those who have taken the Master's degree and are ready to proceed to the Doctorate. The award is made in May of each year, but will be discontinued in 1933.

## I. DIVISION OF EDUCATION

Ellwood Patterson Cubberley, Professor and Executive Head
John Conrad Almack, William Martin Proctor, Jesse Brundage Sears, Professors
Norman Fenton (Director of the California Bureau of Juvenile Research, Whittier State School), Thomas William MacQuarrie (President, State Teachers College, San Jose), Henry Davidson Sheldon (Dean of the School of Education, University of Oregon), George Martin Wiley (Assistant Commissioner, Secondary Education Division, University of the State of New York), Acting Professors (Summer Quarter)
Harold Raymond Benjamin, Percy Erwin Davidson, Walter Crosby Eells, Associate Professors
Walter Lewis Bachrodt (City Superintendent of Schools, San Jose), William George Carr (Assistant Director, Bureau of Research, National Education Association, Washington, D.C.), Peter Lincoln Spencer (Commissioner of Elementary Education, Philippine Islands), Acting Associate Professors (Summer Quarter)
Harrison French Heath (State Teachers College, San Jose), Grover Cleveland Hooker (Millsaps College), Acting Assistant Professors
Hollis Partridge Allen (Assistant Professor of Education, Claremont College), Arnold Clarence Argo (Principal, Sequoia Union High School, Redwood City), James Frederick Bursch (Director of Research, Sacramento City Schools), Roscoe David Case (Superintendent of City Schools, Brush, Colorado), Alice Cecilia Cooper (Head of English Department, Modesto Junior College), Anastasia Doyle (Director of Roble Hall), Andrew Putnam Hill, Jr. (Chief, Division of Schoolhouse Planning, State Department of Education, Sacramento), Leona Hadley McCully (Palo Alto Union High School), Acting Assistant Professors (Summer Quarter)
Hobson Dewey Anderson, Reginald Bell, Assistants in Educational Research
Charles Gilbert Wrenn, Acting Instructor (Autumn Quarter)
Oscar Albin Anderson, Teaching Fellow in School Administration
Thelma Trott, Assistant in Girl Scout Work (Spring Quarter)
Julius Gold, Lecturer in Education (Summer Quarter)

### REQUIREMENTS FOR DEGREES

*Undergraduate Work.*—Major students begin their work in Education with the junior year, and are expected to follow substantially the program of studies outlined below:

*Sophomore or Junior Year.*—
Psychology 51. General Psychology (autumn, *winter, *summer) [5 units]

*Junior Year.*—Required courses, 13 units.
130. Introduction to Study of Education (autumn, *summer) 4 units
133. Principles of Education (winter) 5 units
190. Growth and Development of the Child (spring, *summer) 4 units

*Senior Year.*—Required courses, 9 units.

| | |
|---|---|
| 180. History of Education in America (autumn, *summer) | 3 units |
| 165. Educational Psychology (winter, *summer) | 3 units |
| One of the following: | |
| 193. Principles of Elementary Education } | |
| 195. Principles of Secondary Education (autumn, *summer) } | 3 units |
| Total required courses in Education | 22 units |
| Electives (any course in Division below 200) | 13 units |
| Total undergraduate Education | 35 units |

It will be noted that in the above outline Practice Teaching and Teachers Methods Courses are not to be counted in the required thirty-five quarter units of Education. A Teaching major in Education must include an additional ten quarter units in advanced Education courses.

In addition to the above, for graduation the student must also satisfy the requirements of two Teaching Minors in the School of Education and outside the department. In certain cases one teaching major will be accepted in place of the two teaching minors. If without at least one full year of experience in teaching, the student must also satisfy the Practice Teaching requirements.

Students coming with advanced or graduate standing from other universities may have substantially equivalent training accepted in lieu of the courses and the major and minor work required here. Such students are requested to secure the proper transfer blanks from the Secretary of the School of Education at the beginning of their first quarter of residence at this University, that their previous work may be evaluated and their standing determined.

*First Graduate Year; A.M. Degree.*—The requirements for the baccalaureate degree cover only introductions to Education, and those proposing to offer themselves for responsible positions in educational work will be expected to proceed at once to the Master's degree. For this at least forty-five units of advanced work and three quarters of residence will be required. In addition, the completion of all baccalaureate requirements, listed above, will be expected. Before becoming candidates for the degree of Master of Arts, students admitted to the Graduate Division from other colleges or universities are subject to such departmental adjustment as the Faculty of the School of Education may decide. The undergraduate requirements in Education and Psychology, listed above, must be met, though equivalent courses taken elsewhere may be accepted. Of the forty-five graduate units, at least thirty must be in courses in Education in advance of the baccalaureate requirements, with the presentation of a satisfactory thesis in addition. Courses passed with a grade of D will not be accepted as satisfying requirements.

Work listed below 175 is not included in counting requirements for the Master's degree, and ordinarily at least one-half of the thirty units in Education should be in work listed above 222. The candidate will also be expected to satisfy the requirements for one of the eight special curricula listed on page 225, each of which is based on the idea of preparing for some specific type of position. The candidate must choose a curriculum which offers work not covered in undergraduate standing. (For an outline of the requirements for each of these curricula see *Announcement of the School of Education.*)

Candidates for the Master's degree must file an application, checked by the Secretary and approved by the department, with the Registrar not later than the fourth week of the second quarter of study for the degree. A duplicate of this application should be deposited in the office of the Secretary. Subsequent changes in the programs outlined must be petitioned for.

The completion of the first year of graduate study should mean a somewhat general acquaintance with the different fields of Education, together with the beginnings of specialization in some one or two of these. Those who desire to prepare properly for the type of positions indicated under 6, 7, and 8, page 225, or under curricula 7 and 8 above, should proceed to the Doctorate.

All students should secure from the Secretary of the School of Education at the beginning of their first quarter of residence the proper transfer blanks, that all A.B. and A.M. work may be evaluated, course by course, and the standing of each student cleared up before going on with the second year of graduate work.

*Second Graduate Year.*—By the end of the second year of graduate study the student will be expected to have attained a mastery of the literature and practice in three of the following divisions of the subject: (1) History and Principles of Education, (2) General Theory of Education, (3) Administration and Supervision of Education, (4) Educational Measurement and Statistics, (5) Educational Psychology, (6) Elementary Education, (7) Secondary Education.

Students intending to proceed to the degree of Doctor of Philosophy, either at once or later, may select one of these divisions as a major and one as a minor, and by the end of the second year of graduate study should also have completed in large part the required work in a second minor, outside of the department; should be able to satisfy the modern language requirements (German and French) before applying for admission to candidacy; should be well started on the dissertation; and should be ready for the Department examinations and the University oral examination.

Similarly, students intending to proceed to the degree of Doctor of Education, either at once or later, must select three of the above divisions as the fields for specialization, designating one as the field of the thesis, and offer a consecutive program of study such as will insure a broad and systematic knowledge of Education. If a candidate for the Administrator type of this degree, the required outside Teaching-Major and Minor must be completed by the end of the second year of graduate study; if a candidate for the Master Teacher type of this degree, an outside minor subject, as in candidacy for the Ph.D. degree, will be required to be carried.

Any student may do two or more years of graduate work in Education, following the same courses as degree candidates, but without becoming a candidate for the Ed.D. or the Ph.D. degree. For a statement as to the conditions for candidacy for either of these degrees see the *Announcement of the School of Education*, and the pamphlet on *Advanced Degrees in Education*.

*Requirements for a Ph.D. Minor.*—Unless otherwise arranged, candidates for the Ph.D. degree in other departments or schools, who elect a minor in Education, will be expected, in addition to offering evidence of practical experience in teaching, or school administation, to complete forty-five units of work in Education in courses numbered above 174 (half of the work should be in courses listed above 224), and ordinarily to offer such courses along not more than three of the divisions of the field of Education given

above, under the heading *Second Graduate Year*. A written examination is required.

*Residence Work.*—The University offers no correspondence or extension courses, does not accept such courses as counting toward advanced degrees, and requires that all work for degrees must be registered residence work. Six-weeks-session work is not counted as part of the residence requirement for advanced degrees in Education.

The School of Education requires that a candidate for any type of Doctorate must spend at least three consecutive quarters in residence, and the University requires that at least one year, ordinarily the last, be spent at Stanford.

### A. INTRODUCTORY COURSES IN EDUCATION

**110. Girl Scout Training Course.**—A course designed to interest and provide preliminary instruction to any student wishing information on leisure time programs for girls. The course is conducted using the Girl Scout troop organization plan and will include theory, as well as practical technique. Visits to Girl Scout troops and outdoor trips will be features of the course.
2 units, spring quarter (TROTT) TTh 1:30–3
*Spring, 13*

**120. Foundations of Musical Art.**
2 units, summer quarter (GOLD) TTh 3
*Summer, 6*

**130. Introduction to the Study of Education.**—A general introduction to the field of education, giving a preliminary survey of the theories and general principles, and a study of typical phases of the organization and administration of public education, with a view to presenting such a body of information relating to the work of our public schools as the citizen and the teacher ought to have, and at the same time making the course an introduction to the various fields of education. Lectures, following a text, with assigned readings and reports. This course is required of all candidates for any form of California Teacher's Recommendation, and of all major students, if without experience in teaching.
4 units, autumn quarter (WRENN) MTThF 10
4 units, *summer quarter (ELLS) By arrangement
*Autumn, 68; summer, 1*

**133. Principles of Education.**—A study of the biological and psychological principles underlying modern education, in connection with the demands of modern society in a complex social, economic, and scientific world, with the view to the formulation of a working philosophy for the educational process. Class discussion, following the study of a text, supplemented by relevant statistical data.
5 units, winter quarter (DAVIDSON) MTWThF 10
*Winter, 67*

**135. School Reform.**—A study of the principles underlying the "progressive movement" in education, with an examination of the more conspicuous experimental schools.
5 units, autumn quarter (DAVIDSON) MTWThF 11
*Autumn, 7*

**140. Intellectual Education and School Reform.** Superstition, credulity, and irrational belief; propaganda; educational practice and policies for the cultivation of reflective thinking; intellectual motivation; interests:

their nature, origin, and growth; the relation of interests and abilities, etc. The outstanding examples of school reform are considered.
5 units (DAVIDSON) [Not given in 1930–31]

**142. Education and Character.**—A study of the significance for education of the psychology of character. Growth and character; types and individual differences; principles of training; educative agencies.
5 units, spring quarter (DAVIDSON) MTWThF 11
*Spring, 28*

**165. Educational Psychology, Introductory.**—A general elementary course concerned with problems of learning, social adjustment, and the equipment of the learner. Available information concerning the nature and distribution of intellectual and non-intellectual traits, and the mechanism, progress, extent, and conditions of learning, is applied to common teaching situations with attempts to suggest solutions. Attention is also given to methods of educational psychology and researches most needed in the field. Lectures, problem-exercises, and individual reports. Prerequisite: Psychology 51, or equivalent.
3 units, spring quarter (BENJAMIN) MWF 9
3 units, *summer quarter (BENJAMIN) MTWF 11
*Spring, 47; summer, 25*

**172. Juvenile Problems in Education.**—A study of the extent, causes, and prevention of juvenile delinquency, mental deficiency, and other social irregularities related to the work of the public schools and state institutions. Special attention is given to the recent juvenile research developments in California, and to the newer methods of dealing with exceptional children.
4 units, summer quarter (FENTON) MTWThF 3
*Summer, 20*

**174. Rural Education.**—A study of the social and economic factors involved in the development of rural institutional life; how these explain the present status of the larger administrative and supervisory problems of rural education; and the principles and practical methods essential to the solution of these problems.
2 units (————) [Not given in 1930–31]

## B. MORE-ADVANCED COURSES

**175. Educational Sociology, I.**—The interrelations of public schooling and social status, occupational level, income and cultural inequalities, citizenship and industry, nationalism and internationalism. The course should be preceded by Elementary Sociology if possible. Alternates with Course 176.
5 units, autumn quarter (DAVIDSON) MTWThF 9
*Autumn, 16*

**176. Educational Sociology, II.**—Public education in relation to the family, religion, leisure, child labor and child welfare, poverty, crime and delinquency. Sociology of the teaching personnel. The course should be preceded by Elementary Sociology if possible. Alternates with Course 175.
5 units (DAVIDSON) [Not given in 1930–31]

**178. Principles of Education.**—A study of the biological and psychological principles underlying modern education, in connection with the demands of modern society in a complex social, economic, and scientific world, with the view to the formulation of a working philosophy for the educative process. Class discussion, following the study of a text, supplemented by relevant statistical data.
4 units, summer quarter (SHELDON) MTWThF 2
*Summer, 13*

**180. History of Education in America.**—A study of the evolution of American educational ideals and practices, with special reference to the origin and development of those features of our present-day practices which are most characteristically American. Lectures, following a text, assigned readings, and the investigation of an assigned topic.

3 units, autumn quarter (ALMACK) MWF 9
4 units, *summer quarter (CARR) MTWThF 1
*Autumn, 38; summer, 58*

**182a. History of Education.**—Covers the same ground as 182*s*, but is intended primarily for graduate students and candidates for the Ed.D. degree working in part by individual study. The permission of the instructor should be obtained before registering by other than graduate students in Education.

5 units, autumn quarter (CUBBERLEY) MWF 4
*Autumn, 21*

**182s. History of Education.**—A study of the evolution of our educational traditions and practices, beginning with the Greek and Roman periods, with the chief emphasis placed on the foundations that underlie and the forces that have produced our Western civilization, and have resulted in the creation of modern and national school system. The chief emphasis is placed on origins and on the eighteenth- and nineteenth-century forces which have so profoundly modified life and education.

4 units, summer quarter (CUBBERLEY) MTWThF 4
*Summer, 28*

**184. Graphic Methods in Education.**—A course designed to give school officers a working knowledge of the best methods for the exhibition of statistical data in graphic form. Advantages of different forms of graphic presentation are considered. Emphasis is placed on acquiring skill in actual construction of charts, graphs (both arithmetic and ratio), and statistical maps, either for publicity purposes or for illustration of articles and theses. No prerequisites, but knowledge of free-hand lettering desirable. A set of drawing instruments is necessary.

2 units, spring quarter (EELLS) MF 10
3 units, *summer quarter (ALLEN) MWF 10
*Spring, 8; summer, 3*

**185. Elementary Statistical Methods.**—A study is made of the various kinds of statistical series and the properties of each. The purpose of the first part of the course is to discover what constitutes the significant features of a body of data. Opportunity to obtain practice in the computation of the important constants of distributions is given; also in the use of calculating machines and other aids to computation. The approach is inductive, starting with measures and having as its object the discovery of the statistical resources which are available for making data reveal their story. Psychology 60 may be accepted instead of this course.

4 units, autumn quarter (EELLS) MTThF 8
4 units, *summer quarter (EELLS) MTWTh 8
*Autumn, 48; summer, 60*

**186. Administration and Interpretation of Educational Tests and Measurements.**—An introductory course dealing with the detailed problems of administration, interpretation, and use of Educational Tests and Scales. No previous experience in education or mental measurements or statistical method is presupposed.

4 units, winter quarter (HOOKER) MTWTh 11
4 units, *summer quarter (MACQUARRIE) MTWThF 9
*Winter, 43; summer, 52*

**190. Growth and Development of the Child.**—A study of the mental and

physical growth and development of the school child, with special emphasis on physical development and the physical basis of education, the general laws of growth, physical defects, educational hygiene, the health of the school child, and preventive mental hygiene.

4 units, spring quarter (ALMACK) MTThF 10
4 units, *summer quarter (ALMACK) MTWThF 8
*Spring, 57; summer, 48*

**193. Principles of Elementary Education.**—The aim, work, function, and attainable goals of the elementary school as a part of the American system of education, and its specific problems in relation to the community and the other parts of the school system. An introductory course, intended for those without much acquaintance with elementary school work, and primarily designed to meet the State Board of Education requirement for the Elementary Certificate.

3 units [Not given in 1930–31]

**195. Principles of Secondary Education.**—A course dealing with the aims, organization, and fundamental problems of secondary education, intended for those preparing to teach in any form of secondary school, and required of all candidates for the California high-school recommendation. The chief emphasis is placed on the study of problems arising in the contemporary American high school. Oral and written reports.

3 units, autumn and *spring quarters (BENJAMIN) MWF 8
3 units, *summer quarter (MACQUARRIE) MTThF 8
*Autumn, 49; spring, 61; summer, 46*

**196. Junior High School Problems.**—A practical course dealing with the organization and administration of the junior high school with special reference to the outstanding problems in this unit of secondary education. A study of junior high school developments in various parts of the country and special problems relating thereto. Typical junior high school organizations will be constructively analyzed for the purpose of investigating problems and making careful study of their solution. Methods of research relating to the solution of these problems. Reports on selected problems are required.

4 units, summer quarter (WILEY) MTWThF 4
*Summer, 8*

## C. TEACHER-TRAINING COURSES

**201–224.** These numbers are reserved for courses under Teacher Training, Division III of the School of Education, which see.

## D. ADVANCED COURSES

**226. A Supervisor's Course in the Teaching of Arithmetic.**—A course for teachers and supervisors. Takes up the psychological principles underlying the teaching and learning of arithmetic. Emphasizes the diagnosis of difficulties, and the application of remedial measures. Treats relative difficulty, the selection of content, the use of modern methods, measurement, and other problems of curriculum making.

2 units, summer quarter (SPENCER) MWF 10
*Summer, 13*

**227. A Supervisor's Course in the Teaching of Silent and Oral Reading.** This course deals with the underlying science of reading; objectives of reading instruction, and principles of classification and method; specific aims, materials, and methods by periods in the elementary and secondary schools; plans for developing effective reading and study habits in other

subjects; measurement, diagnosis, and remedial instruction. A practical course for teachers, principals, supervisors, and superintendents.
2 units, summer quarter (SPENCER) TTh 10
*Summer, 19*

**228. Investigations in Writing and Spelling.**—This course consists of a review of significant scientific studies relating to writing and spelling with application to problems of materials and methods.
2 units [Not given in 1930–31]

**229. Experimental Education.**—This course is based upon the more important recent experiments relating to the elementary school subjects, methods of research are examined, and applications are made to teaching, supervision, curriculum construction, and research. Open by permission.
3 units, winter quarter (ALMACK) TTh 9
*Winter, 18*

**230. High-School Administration.**—Study of practical problems relating to the administration of a secondary school, such as organization, curricula, teaching staff, community relationships, part-time education, etc. A special problem is assigned for individual investigation by each student electing the course. Open only to seniors and graduate students who have had a minimum of fifteen units of work in Education, including Course 195, or who are teachers of satisfactory experience.
5 units, autumn quarter (PROCTOR) MTWThF 9
4 units, *summer quarter (ARGO) MTWThF 10
*Autumn, 18; summer, 63*

**231. Curriculum Construction.**—Principles of curriculum construction which underlie the efforts now being made in numerous school systems to reorganize the entire program of study, kindergarten through the junior college, are considered in this course. Consideration is given to curriculum revision work now going on in Los Angeles, San Francisco, Sacramento, Long Beach, and other California cities, as well as the completed programs of revision in Denver, St. Louis, and other eastern cities. Prerequisites: senior or graduate standing, and at least ten hours credit in Education courses.
5 units, winter quarter (PROCTOR) MTWThF 8
4 units, *summer quarter (PROCTOR) MTWThF 9
*Winter, 35; summer, 72*

**232. Curriculum Problems.**—A seminar course for those who have had Education 230 or its equivalent. Special curriculum making tasks involving technique of curriculum construction now in general use where courses of study are being revised, are undertaken by the members of the class and supervised by the instructor. Also methods of research applicable to curriculum revision problems are studied.
2 units, spring quarter (PROCTOR) Th 1–3
*Spring, 6*

**233. Student Activities in High Schools.**—Student participation in school government, athletic associations, honor societies, glee clubs, social and scientific clubs, school publications, and such supplementary school agencies as Boy and Girl Scouts, Junior Chamber of Commerce, Hi-Y, and Junior Red Cross, are considered. The course should be of interest to high-school principals, vice-principals, and deans of boys and girls, as well as to high-school teachers preparing for the work of school counselors. Education 195, with some other work in Education, a prerequisite.
2 units, spring quarter (PROCTOR) TTh 11
4 units, *summer quarter (ARGO) MTWThF 8
*Spring, 30; summer, 64*

**234. Educational and Vocational Guidance.**—The general principles of educational and vocational guidance are taken up during the first part of the quarter. The relation of guidance to the different phases of education work—social, civic, moral, aesthetic, and vocational—are considered. During the latter part of the quarter methods employed in counseling are investigated, and problems are assigned which require case studies and personal investigation of situations existing in nearby high schools. Prerequisites: Education 195 or equivalent, graduate standing, or teaching experience and senior standing.

5 units, spring quarter (PROCTOR) MTWThF 8
4 units, *summer quarter (BURSCH) MTWThF 3
*Spring, 43; summer, 47*

**236. Problems and Procedure for Deans and Advisers of Girls.**—A course for experienced teachers, administrators, deans and advisers of girls, and for graduate students who expect to take up work as dean and adviser of girls. Course deals with duties of dean, such problems of advisership as health, educational and vocational guidance, recreation, morals and religion; case work, social activities, office equipment and technique, and community relationships.

4 units, summer quarter (DOYLE) MTWThF 1
*Summer, 12*

**237. Adult Education.**—Seminar on development of agencies which provide educational opportunities for adults. Involves a study of the history, aims, and purposes of the agencies which provide educational opportunities for adults in America and Europe. The philosophy, methods of teaching, sources of support, and administration of adult education are investigated.

2 units, autumn quarter (PROCTOR) TTh 11
4 units, *summer quarter (BURSCH) MTWThF 4
*Autumn, 16; summer, 7*

**238. Secondary Education Problems.**—A seminar course which involves a critical examination of the outstanding problems in the field of secondary education. Current literature is examined, and methods of research applicable to the solution of these problems are investigated. Oral and written reports on selected problems are required. Prerequisites: Education 195 and 230, or equivalents.

2 units, winter quarter (PROCTOR) TTh 11
4 units, *summer quarter (WILEY) MTWThF 2
*Winter, 9; summer, 18*

**240. Advanced Statistical Methods, I.**—This course is a continuation of 185, and deals primarily with series of related measures. The statistical methods of analysis of correlated data and the means of combining several measures into total scores are treated. Education 185, Psychology 60, or other equivalent course is a prerequisite.

3 units, winter quarter (EELLS) MWF 8
3 units, *summer quarter (EELLS) MTThF 10
*Winter, 18; summer, 8*

**241. Advanced Statistical Methods, II.**—This is a continuation of Education 240. It deals especially with problems in multiple correlation and with the statistical treatment of known linear, skew, and categorical data. Education 240 is prerequisite. Course alternates with 315.

3 units, spring quarter (EELLS) MWF 8
*Spring, 15*

**244. Interpretation and Construction of Mental and Educational Tests and Measurements.** This is a continuation of Course 186, dealing

in the main with the interpretation of test scores in a diagnostic manner. Methods for the utilization of various measures in educational and vocational guidance programs are indicated. Some attention is given to the methods of construction of educational tests. Education 185, 186, and 189, or equivalents, are presupposed.

4 units, spring quarter (HEATH) MTWTh 2
4 units, *summer quarter (HEATH) MTWThF 9
*Spring, 6; summer, 12*

**248. Education and Character: Advanced.**—A continuation of Courses 140 and 142. Open to students who have had either of these courses, or the equivalent.

3 to 5 units (DAVIDSON) [Not given in 1930–31]

**250. State School Administration.**—A study of the educational principles underlying the proper administration of school systems in states and counties, and involving a comparative study of the school systems of the various American States. The course includes a study of such topics as federal and state policy, forms of control, scope of the school system maintained, revenue and apportionment, the state and the teacher, the state and the child, private and sectarian education, and state oversight and control. This course as stated carries four units. An additional unit of credit may be had by carrying a parallel study of the California School System, and by this means answering the state requirement of such a course for the administration credential.

6 units, spring quarter (CUBBERLEY) MWF 3–5
4 units, *summer quarter (CUBBERLEY) MTWThF 3
*Spring, 18; summer, 53*

**251. City School Administration.**—A study of the educational, financial, and administrative principles underlying the proper organization, administration, and supervision of school systems in cities, with a view to the establishment of principles of action. A thesis on some problem in city school organization or administration, or a survey of some city school system, required of each student.

4 units, autumn quarter (CUBBERLEY) MWF 3
4 units, *summer quarter (BACHRODT) MTWThF 8
*Autumn, 32; summer, 56*

**252. Conference on State School Legislation.**—A survey of the importance, scope, and proper limits of legislation in developing state school systems. The general survey will be supplemented by an intensive study of a few specific problems in school legislation which are most urgent at the present time. It is strongly urged that the course in State School Administration (Education 250) be taken either concurrently with this course or as a prerequisite.

3 units, summer quarter (CARR) MTThF 2
*Summer, 5*

**254. The Principal and His School.**—A practical course, dealing with the organization and administration of a single school, the organization and supervision of instruction, school extension, community relationships, etc. Thesis on some administrative problem required of each student.

4 units, autumn quarter (HOOKER) MTThF 10
4 units, *summer quarter (BACHRODT) MTWThF 11
*Autumn, 17; summer, 36*

**255. Administrative Problems.**—A course in which the teacher, or administrator with little or no experience, solves the problems with which the average school administrator is confronted. The course is also intended to give the teacher the administrative viewpoint, in the solving of problems in

organization, administration, and supervision of public schools. Special attention will be given to less mature administrators and teachers.
3 units, summer quarter (CASE) MTWTh 1
*Summer, 18*

**256. Organization and Supervision of Instruction.**—A study of the principles underlying the organization and supervision of classroom instruction, the art and technique of schoolroom supervision, the supervision of schoolroom instruction in the different school subjects, and means for improving teaching technique and the estimating of teaching efficiency. For present and prospective principals, superintendents, and special supervisors. Experience or special preliminary training a prerequisite.
4 units, summer quarter (SPENCER) MTWThF 11
*Summer, 26*

**257. The Platoon School.**—A detailed study of the history, organization, administration, work, costs, advantages, and disadvantages of the platoon type of organization. Comparison of the platoon system as used in various cities of the United States will be made. This course will deal with the concrete problems common to the platoon plan.
3 units, summer quarter (CASE) MTWTh 4
*Summer, 8*

**262. Organization and Supervision of Elementary Education.**—A course dealing with the more important problems of organization, management, and supervision of the elementary school, including such topics as grade, departmental, group, and individual systems of class organization; typical promotion schemes; program making; time allotment; grades and marks; records and reports; attendance and retardation.
4 units, winter quarter (SEARS) MTWTh 2
*Winter, 21*

**265. School Surveys and Educational Diagnosis.**—A study of the literature relating to school surveys and to the methods and technique essential to the investigation of the major problems of the school administrator. How to organize and conduct a school survey, how to determine the lines of investigation needed, how to collect and interpret data, and how to set forth results of the investigation in a report are important features of the course.
4 units, winter quarter (SEARS) MTWTh 1
4 units, *summer quarter (SEARS, HILL) MTWThF 1
*Winter, 19; summer, 15*

**267. Business Management of City School Systems.**—A study of the organization and of the processes of managing the business affairs connected with the development, operation, and maintenance of physical properties, and with the financial accounting for city school systems.
4 units, summer quarter (SEARS) MTWThF 2
*Summer, 22*

**268. Fundamentals of Management Applied to Education.**—This course takes up the basic principles of management which are common to business and education and is concerned with the utilization of these principles in education. Major topics include: the economics of effective management, the basic functions of management, policies and policy-making, principles of organization, planning and planning methods, co-ordination and control, incentive as a psychological basis of control. These topics are considered from the viewpoint of both the central management and the rank and file as represented by the teacher in a school organization.
3 units, summer quarter (ANDERSON) MTWTh 11
*Summer, 13*

**269. School Buildings and Building Programs.**—A study of the fundamental problems involved in schoolhouse planning and construction, including standards of construction, unit cost, types of buildings, janitor service, and building surveys.

4 units, winter quarter (ALMACK) MTThF 10
4 units, *summer quarter (HILL) MTWThF 2
*Winter, 19; summer, 16*

**270. Public School Finance.**—A course on the financing of public education in the United States dealing with the main problems of expenditures, the cost of schools, education as an economic burden, revenues and their control, indebtedness, budget-making, accounting, costing service, and financial reporting.

4 units, spring quarter (SEARS) MTWTh 1
*Spring, 13*

**280. Current Problems in Public Education.**—A seminar type study and discussion of current problems in the organization and administration of public education in cities. Admission on permission of the instructor.

2 units (CUBBERLEY) [Not given in 1930–31]

**282. Comparative Education.**—A study of foreign school systems with particular attention to recent changes in educational organization, support, control, objectives, and methods in Great Britain, France, Germany, Russia, Czechoslovakia, and the Orient. Prerequisite: senior or graduate standing.

4 units, summer quarter (BENJAMIN) MTWThF 10
*Summer, 42*

**285. The Junior College.**—A study of the development, organization, and administration of the Junior College. Attention will be directed to the functions of the public junior college and its place in educational reorganization. Designed for prospective junior college teachers and administrators. Graduate students only admitted.

4 units, autumn quarter (EELLS) MTThF 10
4 units, *summer quarter (EELLS) MTWThF 11
*Autumn, 15; summer, 31*

**290. Introduction to Thesis Work.**—All students registering as candidates for the degree of Master of Arts are expected to spend one quarter in thesis training, where instruction in finding materials, bibliography, thesis organization, etc., is given, and the student guided to the selection and work on a problem.

1 unit, autumn quarter (ALMACK) W 10
1 unit, *spring quarter (BENJAMIN) W 10
1 unit, *summer quarter (BENJAMIN, CARR, EELLS) W 10, 2, F 11
*Autumn, 39; spring, 11; summer, 67*

**295. Education Journal Club.**—All graduate students in Education are expected to include registration in this course as a part of their graduate program. The course includes an acquaintance with magazine and monograph literature, European as well as American, with reports and discussion of the more important current material.

2 units, autumn quarter (BENJAMIN) T 7:30–10 P.M.
2 units, *winter quarter (DAVIDSON) T 7:30–10 P.M.
*Autumn, 27; winter, 15*

**300. Seminar in Principles of Research.**—A seminar in scientific method and the underlying principles of research. A brief period is given to forming an acquaintance with outstanding examples of the general literature of scientific method, followed by reports on original studies made by members of the class. Open to second-year graduate students, after consultation

with the instructor, who desire to become candidates for the Ed.D. and Ph.D. degrees in Education.

4 units, autumn quarter (ALMACK) MTThF 10
3 units, *summer quarter (ALMACK) MWF 9
*Autumn, 8; summer, 21*

**301. Seminar in Educational Sociology.**—Devoted to a study of problems in character study and character training, and to certain sociological aspects of public education. Theme for the quarter: School Reform. Open by permission.

3 to 5 units, winter quarter (DAVIDSON) WF 2–4
3 to 5 units, *spring quarter (DAVIDSON) TTh 3–5
*Winter, 7; spring, 12*

**302. Seminar on Elementary School Curriculum.**

2 units (ALMACK) [Not given in 1930–31]

**303. Seminar in Personnel Problems.**—A course concerned with personnel problems of teachers associations, employment bureaus, teachers, principals, and superintendents; and, to a more limited degree, with higher educational institutions. Among the topics considered are selection of employees, preferred lists, classification and promotion, rating, tenure, salaries, participation in management, load, training in service, health, and retirement. Open by permission.

3 units, spring quarter (ALMACK) TTh 9
*Spring, 18*

**304. Seminar in History of Education.**—Research and reports upon problems dealing especially with the western states and institutions. Particular emphasis is placed upon the history of education in California and the history of Stanford. Open by permission.

2 units, winter quarter (ALMACK) [Not given in 1930–31]

**305. Seminar in Public School Finance.**—Open to students of administration who are equipped to carry on investigation within this field.

4 units, summer quarter (SEARS) MTWThF 1
*Summer, 4*

**306. Seminar in Administrative Problems of City Superintendent.**—A practical study of the administrative program in medium-sized city school systems. For advanced students who have had a general course in the principles of school administration (251) and supervisory experience. Special assignment to each student of a problem for individual investigation and term report.

2 units, summer quarter (ALLEN) TTh 10
*Summer, 3*

**307. Seminar in School Survey Technique.**—Emphasis will be placed during 1930–31 on the development and extension of the methods and technique of the school survey. The needs of state, county, and city school superintendents for norms, standards, and exact methods of investigation in their work will furnish the basis for the selection of individual problems.

4 units, spring quarter (SEARS) MTWTh 2
*Spring, 2*

**308. Seminar in School Reform.**—Open to teachers and school officers of experience. An examination of practices in the "progressive schools" in the light of related inductive studies.

3 to 5 units (DAVIDSON) [Not given in 1930–31]

**310. Seminar in Supervision of Instruction.**—Open to supervisors, principals, and superintendents, and to a small number of teachers looking forward to supervisory work. While the main emphasis is upon the devel-

opment of techniques, some attention is given to organization of the staff, the planning of the supervisory program, and the measurement of results of supervision. Number in class limited.
2 units, spring quarter (ALMACK) Th 7:30–10 P.M.
*Spring, 12*

**312. Seminar in Junior College Problems.**—Open to students who have completed Course 285 and who desire to carry on special investigations of particular problems in the junior college field. Enrollment limited.
2 units, winter quarter (EELLS) T 7:30–10 P.M.
*Winter, 11*

**313. Seminar in the Improvement of College Teaching.**—A study of such problems of college and university instruction as preparation of teachers, teaching load, class size, student reactions, measurement of instruction, honors courses, individual study. Emphasis on recent experimental work in this field.
3 units, winter quarter (EELLS) MWF 10
4 units, *summer quarter (SHELDON) MTWTh 2
*Winter, 4; summer, 4*

**314. College Administration.**—A study of the main features of college and university administration, including control, plant, faculty organization, tenure, leave of absence, insurance, academic freedom, financial management, personnel administration, and alumni relationship.
3 units, spring quarter (EELLS) MWF 9
*Spring, 10*

**315. Seminar in Counseling Problems.**—A seminar in the methods employed in educational and vocational counseling in the high school and junior college. Prerequisite: Course 234 or its equivalent and satisfactory experience. Open on permission of instructor.
2 units, summer quarter (PROCTOR) MF 8
*Summer, 22*

**316. Seminar in Curriculum Problems.**—A seminar course for those who have had Education 231 or its equivalent. Special curriculum making tasks involving technique of curriculum construction now in general use where courses of study are being revised, are undertaken by the members of the class and supervised by the instructor. Also methods of research applicable to curriculum revision problems are studied.
2 units, summer quarter (PROCTOR) TTh 8
*Summer, 15*

**325. Psychometry.**—Essentially a research course. Attention is given to the analysis of mentality; to the measurement of interest; of special sensory capacity; and of certain specific habits and skills. The bearing upon problems of guidance is stressed. Education 240 and 244, or equivalents, are prerequisites. Course alternates with 241.
2 units, winter and spring quarters (————) [Not given in 1930-31]

**335. The Thesis for the Doctorate.**—Students in Education or other departments working upon Ph.D. dissertations, and students in Education working upon Ed.D. dissertations, who desire assistance in connection with the definition and handling of their problems may enroll in this course, upon approval of the instructor. The work is individual and adapted to the student's special problems. Each student is called upon to make a report each quarter upon the progress of his investigation. This course is intended for the special help of Ph.D. or Ed.D. students in Education, or Ph.D. students in other departments, whose theses involve statistical procedure, and is not intended to take the place of registration for research work with

individual professors. Education students should register for their thesis work under the instructors and courses listed below.

2 units, winter quarter (ALMACK) W 9–11
2 units, *summer quarter (ALMACK) TTh 9
*Winter, 7; summer, 6*

**340–350. Special Thesis Courses.**—In addition to the courses listed above special work in independent investigation is provided for students prepared to do such advanced work, the nature of the investigation being determined by the student's preparation and needs. Permission to register for any of the following special courses, and the number of units of credit to be given, are subject to individual arrangement. In signing up for any one of the following courses, the proper number and name of instructor should be put on study cards. Meetings of the different groups are arranged for from time to time, usually in the evenings, for reports as to progress, discussion, and criticism.

The members of the instructing staff stand ready to supervise independent investigations in the following fields:

**340.** Problems in the history of education. (ALMACK, CUBBERLEY)

**341.** Problems in the theory of education. (DAVIDSON)

**342.** Problems in the organization and administration of rural and county-unit education. (ALMACK, CUBBERLEY)

**343.** Problems in the organization and administration of elementary education. (ALMACK, SEARS)

**344.** Problems in the organization and administration of secondary education and vocational education and guidance. (BENJAMIN, PROCTOR)

**345.** Problems in state, county, and city school organization and administration. (ALMACK, CUBBERLEY, SEARS)

**346.** Problems in school finance and business management. (SEARS)

**347.** Problems relating to the school plant. (ALMACK)

**348.** Problems relating to educational tests, measurements, and statistical procedures. (EELLS)

**349.** Problems in intelligence testing and educational psychology. (MERRILL, TERMAN)

**350.** Problems in junior college administration. (EELLS, PROCTOR)

*Courses 340–350 combined: Autumn, 20; winter, 42; spring, 51; summer, 87*

## II. DIVISION OF EDUCATIONAL PSYCHOLOGY

LEWIS MADISON TERMAN, Professor and Executive Head
JOHN CONRAD ALMACK, CALVIN PERRY STONE, Professors
HAROLD RAYMOND BENJAMIN, WALTER CROSBY EELLS, Associate Professors
MAUD AMANDA MERRILL, Assistant Professor

This division includes the courses in educational psychology, mental testing, and closely related lines. Students working in this division may register under and receive degrees from either the School of Education or the Department of Psychology, the requirements for degrees being as stated under each of these headings.

COURSES OF INSTRUCTION

**165. Educational Psychology, Introductory.**—A general elementary course concerned with problems of learning, social adjustment, and the equipment of the learner. Available information concerning the nature and distribution of intellectual and non-intellectual traits, and the mechanism, progress, extent, and conditions of learning, is applied to common teaching situations with attempts to suggest solutions. Attention is also given to methods of educational psychology and researches most needed in the field. Lectures, problem-exercises, and individual reports. Prerequisite: Psychology 51, or equivalent.

3 units, spring quarter (BENJAMIN) MWF 9
3 units, *summer quarter (BENJAMIN) MTWF 11
*Spring, 47; summer, 25*

**170. Mental Deficiency and Delinquency.**—A study of mental retardation and its relation to delinquency. Mental traits of the feeble-minded; heredity; classification; psychological diagnosis. Prerequisite: Psychology 51.

3 units, winter quarter (MERRILL) MWF 9
*Winter, 169*

**172. Juvenile Problems in Education.**—A study of the extent, causes, and prevention of juvenile deliquency, mental deficiency, and other social irregularities related to the work of the public schools and state institutions. Special attention is given to the recent juvenile research developments in California, and to the newer methods of dealing with exceptional children.

4 units, summer quarter (FENTON) MTWThF 3
*Summer, 20*

**173. Psychology and Treatment of Exceptional Children.**—A study of bright and dull children. Prerequisite: Psychology 51.

3 units, spring quarter (MERRILL) MWF 9
*Spring, 30*

**188. Mental Tests.**—An introductory course dealing with the principles and applications of intelligence tests and of methods of testing personality and character traits. Lectures and demonstrations. Prerequisite: Psychology 51. A course in statistical method must accompany or precede.

4 units, summer quarter (TERMAN) MTThF 11
*Summer, 31*

**189. Intelligence Tests.**—An introductory course, dealing with the history and principles of mental measurement and with the technique of intelligence testing, with emphasis on Binet procedure. Prerequisites: Psychology 51, and either Psychology 60 or Education 185.

4 units, autumn quarter (MERRILL) MTWTh 11
*Autumn, 27*

**225. Educational Psychology: Advanced.**—Original endowment, mental development, individual differences in relation to heredity, sex, and environment; learning, formal discipline, work, and fatigue, with special reference to the school program. Independent study, discussions, and class reports. Prerequisites: Psychology 51, 55 or Education 165, and Psychology 60 or Education 185.

3 units, winter and spring quarters (TERMAN) MWF 11
*Winter, 9; spring, 8*

**235. Psychological Analysis of Biographies.**—The mental development of eminent individuals and the psychological factors which have influenced

their achievement. Some knowledge of mental tests and of abnormal psychology is presupposed.
3 units, summer quarter (TERMAN) TTh 2:05–3:05
*Summer, 10*

**240. Advanced Statistical Methods, I.**—This is a continuation of Course 185 and deals primarily with series of related measures. The statistical methods of analysis of correlated data and the means of combining several measures into total scores are treated, with particular application to educational and mental test data and problems. Education 185, or Psychology 60, is a prerequisite.
3 units, winter quarter (EELLS) MWF 8
3 units, *summer quarter (EELLS) MTThF 10
*Winter, 18; summer, 8*

**241. Advanced Statistical Methods, II.**—This course is a continuation of Education 240. It deals especially with problems in multiple correlation and with the statistical treatment of known linear, skew, and categorical data. Education 240 is a prerequisite. Alternates with Course 240.
4 units, spring quarter (EELLS) MWF 8
*Spring, 15*

**244. Interpretation and Construction of Educational Tests and Measurements.**—This is a continuation of Courses 186 and 187, dealing in the main with the interpretation of test scores in a diagnostic manner. Methods for the utilization of various measures in educational and vocational guidance programs are indicated. Some attention is given to the methods of construction of educational tests. Education 185, 186, and 189, or equivalents are presupposed.
4 units, spring quarter (HEATH) MTWTh 2
4 units, *summer quarter (HEATH) MTWThF 9
*Spring, 6; summer, 12*

**245. Mental Test Practice.**—The selection and use of mental tests, with laboratory practice and field work. Important types of tests are subjected to experiment and critically evaluated. Prerequisites: Psychology 60, 188, or 189, and one laboratory course.
4 units, winter quarter (MERRILL) MTWTh 1:05–3:05
*Winter, 9*

**300. Seminar in Principles of Research.**—A seminar in scientific method and the underlying principles of research. A brief period is given to forming an acquaintance with outstanding examples of the general literature of scientific method, followed by reports on original studies made by members of the class. Open to second-year graduate students, after consultation with the instructor, who desire to become candidates for the Ed.D. and Ph.D. degrees in Education.
4 units, autumn quarter (ALMACK) MTThF 10
3 units, *summer quarter (ALMACK) MWF 9
*Autumn, 8; summer, 21*

**319. Seminar.**—Research, reports, and reviews of literature. Registration by permission. Enrollment limited to 20.
1 unit, winter and spring quarters (TERMAN, MERRILL) W 7:30–10 P.M.
*Winter, 12; spring, 14*

**322. Mental Development.**—Seminar and problem course. A critical survey of the most important studies of infancy, childhood, adolescence, and senescence. Intended primarily for major students in Psychology and Education who are in the second or third year of graduate work. Alternates with Course 323.
3 units (TERMAN) [Not given in 1930–31]

**323. Psychology of Endowment.**—A seminar and thesis course. Tests of general intelligence, special abilities, character and personality; the psychology of genius; mental inheritance; race differences, etc. Intended for same class of students, and alternates with Course 322.

2 units, winter and spring quarters (TERMAN) TTh 11
*Winter, 9; spring, 10*

**324. Mental Test Problems.**—For qualified students who wish to undertake an experimental problem of limited scope.

2 or 3 units, autumn, winter, and spring quarters (TERMAN, MERRILL)
[Not given in 1930–31]

**325. Psychometry.**—Essentially a research course. Attention is given to the analysis of mentality; to the measurement of interest; of special sensory capacity; and of certain specific habits and skills. The bearing upon problems of guidance is stressed. Education 240 and 244, or equivalents, are presupposed. Alternates with Course 241.

2 units, winter and spring quarters (————) [Not given in 1930–31]

**335. The Thesis for the Doctorate.**—Students in Education or other departments working upon Ph.D. dissertations, and students in Education working upon Ed.D. dissertations, who desire assistance in connection with the definition and handling of their problems may enroll in this course, upon approval of the instructor. The work is individual and adapted to the student's special problems. Each student is called upon to make a report each quarter upon the progress of his investigation. This course is intended for the special help of Ph.D. or Ed.D. students in Education, or Ph.D. students in other departments whose theses involve statistical procedure, and is not intended to take the place of registration for research work with individual professors. Education students should register for their thesis work under Courses 340–50.

2 units, winter quarter (ALMACK) W 9–11
2 units, *summer quarter (ALMACK) TTh 9
*Winter, 7; summer, 6*

**340. Research and Special.**
(DEPARTMENT FACULTY) By arrangement

## III. DIVISION OF TEACHER TRAINING

WILLIAM MARTIN PROCTOR, Professor and Executive Head
LEE EMERSON BASSETT, ARTHUR BRIDGMAN CLARK, WILLIAM ALPHA COOPER, ERNEST WHITNEY MARTIN, EVERETT WALLACE SMITH, Professors
JOSEPH GRANT BROWN, WALTER CROSBY EELLS, Associate Professors
HAROLD RAYMOND BENJAMIN, Associate Professor, and Director of Practice Teaching
SOPHIA CRAMER, LINA JACOB GUERRERO, LEONA HADLEY MCCULLY, RUTH PRESTON, Assistants in Instruction, Teachers' Methods Courses

The following Teachers' Courses are offered for the better preparation of prospective teachers in teaching technique and are not counted for credit toward degrees. A Teachers' Course should be added to each Teaching Major or Teaching Minor when offered in the subject or line of work in which the student is preparing. The maximum counting value toward the Education

requirements for the High-School Teacher's Recommendation for all such courses, as provided by the rules of the California State Board of Education, is three units.

### A. MANAGEMENT AND PRACTICE

**201. Methods and Management of Instruction.**—A practical course in the methods and management of secondary instruction. The various types of teaching are presented in lectures, discussions, class demonstrations, and observation of work in high schools. Particular attention is paid to the technique of project procedure, and to methods of individualizing instruction. This course is intended to be a preparation for practice teaching, and should be taken before Course 202.

2 units, autumn, *spring, and *summer quarters (BENJAMIN) TTh 8
*Autumn, 49; spring, 71; summer, 1*

**202. Practice Teaching.**—Practice in the handling of classes and the giving of instruction, with accompanying conferences, six units of credit in such work being required of all inexperienced teachers, by the rules of the State Board of Education, for a California High-School Teacher's Recommendation. Those who desire to enroll for practice teaching should secure a blank form of application for a practice-teaching position from the Director of Practice Teaching, and fill out and file the same during the quarter preceding the one in which they desire to fulfill their practice-teaching requirement. Prospective cadet teachers should confer in advance with reference to undertaking this work. Conference with all practice teachers required each week. Prerequisites: six to ten units of work in Education, including Courses 195 and 201 for secondary school teaching, together with graduate standing. The teachers' courses in major and minor subjects (Courses 203–222) should be taken at approximately the same time. For good reason, with permission, seniors may be admitted to the work.

Students must register in Practice Teaching in the autumn and winter quarters, or in the winter and spring quarters, as the work covers a semester and must be carried through two quarters. New students are not accepted at the beginning of the spring quarter.

3 units, autumn and winter quarters (BENJAMIN) Conference M 4:05–5
3 units, *winter and spring quarters (BENJAMIN) Conference M 4:05–5
*Autumn, 31; winter, 76; spring, 49*

### B. TEACHERS' METHODS COURSES

These courses are intended for students preparing for credentials in the secondary schools, and are offered in connection with the practice-teaching work to students preparing in the teaching majors and minors, as described in the *Announcement of the School of Education.* These courses are required, if offered in connection with the major and minor subjects in which preparation is made, and are supposed to precede or parallel the practice teaching.

**203. Teachers' Course in Biology.**

[Not given in 1930–31]

**204. Teachers' Course in Chemistry.**

[Not given in 1930–31]

**206. Teachers' Course in Graphic Art.**—For intending teachers of art: discussion of aims and methods of drawing and art instruction in the public

schools. A study of the development of the artistic expression in the child in the fields of drawing, design, crafts, and art appreciation. Theory and practice in organization of courses of study for the elementary and secondary schools. Open only to Upper Division students.
3 units, spring quarter (FARMER) MWF 10
3 units, *summer quarter (FARMER) MTWTh 10
*Spring, 3; summer, 5*

**207. Teachers' Course in Social Studies.**—A study of the problems involved in the teaching of the social studies including history, citizenship, geography, economics, and social problems in the junior and senior high school. The course considers the scope and unity of this field; educational objectives; organization of subject-matter for teaching; and methods of classroom procedure.
3 units, summer quarter (MCCULLY) MTWTh 11
*Summer, 25*

**208. Teachers' Course in English.**
2 units, winter quarter (PRESTON) TTh 4
3 units, *summer quarter (COOPER) MTWTh 2
*Winter, 22; summer, 15*

**209. Teachers' Course in French.**
2 units, autumn quarter (CRAMER) TTh 4
*Autumn, 15*

**210. Teachers' Course in Modern Languages.**
3 units, summer quarter [Not given in 1930–31]

**211. Teachers' Course in General Science.**
[Not given in 1930–31]

**[Teachers' Course in German.**—See Germanic Languages 200.]

**[Teachers' Course in Greek.**—See Classical Literature A200.]

**214. Teachers' Course in History.**
2 units, autumn quarter (MCCULLY) WF 3
*Autumn, 35*

**215. Teachers' Course in Journalism.**—A course for those preparing to become teachers of journalistic writing in secondary schools, and for those preparing to supervise student publications in such schools.
2 units, autumn and *spring quarters (SMITH) By arrangement
2 units, *summer quarter (SMITH) TTh 3
*Autumn, 3; spring, 4; summer, 3*

**[Teachers' Course in Latin.**—See Classical Literature B200.]

**217. Teachers' Course in Public Speaking.**—A course in problems and methods of teaching the several branches of oral expression in the secondary schools.
2 units, spring quarter (BASSETT) M 2–4
*Spring, 20*

**219. Teachers' Course in Mathematics.**
2 units, autumn and *spring quarters (HEATH) TTh 4
2 units, *summer quarter (HEATH) MWF 10
*Autumn, 1; spring, 11; summer, 6*

**220. Teachers' Course in Physical Education.**
2 units [Not given in 1930–31]

**[Teachers' Course in Physics.**—See Physics 203.]

**222. Teachers' Course in Spanish.**
2 units, winter quarter (GUERRERO) WF 4
*Winter, 5*

**223. Criticism and Supervision of Instruction.**—A few advanced students, who have had sufficient teaching experience, are allowed to undertake the personal investigation, in the schools of the vicinity, of problems in instruction or supervision. Collateral reading and detailed written reports are required. Enrollment only after conference with the instructor concerned.

1 unit, winter, *spring, and *summer quarters (PROCTOR) By arrangement
*Winter, 5; spring, 4; summer, 1*

**224. Modern Methods in High-School Teaching.**—A course dealing primarily with experimental studies in the field of teaching method. Opportunity is given for intensive work on topics suited to each student's prospective teaching position. Prerequisite: an elementary course in methods, or teaching experience.

2 units (BENJAMIN) [Not given in 1930–31]

### C. COURSES FOR TEACHERS OF SPECIAL SUBJECTS

A number of special courses of instruction, and groupings of courses, designed to prepare teachers for special work in the public schools, have been arranged and are described in the *Announcement of the School of Education* (issued in June). These include courses designed to prepare manual arts teachers and teachers of home economics (in connection with one of the State Teachers Colleges), and teachers of the special high-school subjects.

## IV. DIVISION OF GRAPHIC ART

ARTHUR BRIDGMAN CLARK, Professor and Executive Head
CHLOE LESLEY STARKS, Associate Professor
EDWARD MCNEIL FARMER, Instructor

The work aims primarily to prepare students for positions as teachers of drawing and art in secondary schools. Many of the courses are also suitable for the practical and general cultural needs of students in other departments.

Intending teachers of art should register with the Division of Graphic Art as their major subject, and such may enroll as prospective majors in this division beginning with the freshman year.

### REQUIREMENTS FOR DEGREES AND CERTIFICATES

*Degree of Bachelor of Arts:* Sixty units in Graphic Art. Intending teachers should also take enough work in Education, and in a teaching minor of some subject other than Graphic Art, to make possible the completion of the requirements for a high-school teacher's credential during one graduate year.

Intending Art majors should take 20 to 30 units of Art while in the Lower Division as preparation for graduation in four years.

*Junior High School Certificate:* Sixty units in Graphic Art, 27 units in Education, and a teaching minor.

*Special Certification, Fine Arts Type:* Secondary and Junior College Grade, 75 units in Graphic Art and 22½ units in Education.

[See *Announcement of the School of Education* for requirements for all certificates. For the special lists of subjects required consult the secretary of the School of Education.]

*Master's Degree, including Secondary Teacher's Certificate:* One graduate year including the following: 26 units, including thesis, in Graphic Art; at least nine units in Education of the required 27 units; completion of a teaching major or minor (in addition to the one in Graphic Art).

COURSES IN INSTRUCTION

**1. Still-life and Quad Sketching.**—Fundamental principles in blocking, proportion, and light and shade. Subjects, still-life and out-of-door drawings of parts of the arcades of the University. The drawings are large (20"×25"), and done with charcoal and colored crayon. The aim of the course is to give readiness and reasonable accuracy in representation. Open to all students.

3 to 5 units, autumn quarter (STARKS) MTWThF 1:05–4:05
*Autumn, 16*

**2. Free-hand Constructive Drawing.**—The development of a graphic vocabulary of objects, animals, and the human figure. Study is made of structure, action, three-dimensional form, foreshortening, and chiaroscuro. The practice is based on constructive methods to encourage drawing from memory and imagination and to stimulate observation when models are used. The course is designed to give purpose and power in graphic expression by giving the student sound theory and practice in graphic methods. Open to all students.

5 units, winter quarter (FARMER) MTWThF 10
*Winter, 14*

**3. Design in Form and Color.**—Great advance has been made in recent years in design, both in the development of rich color in surface decoration as applied to textiles and in interior decoration. To develop power in creative expression and color arrangement in prismatic as well as grayed colors, is the object of the course.

The work is done in tempera color with the brush directly, training in the most practical way habits of color analysis and clear thinking. A series of problems is given which begins with the color wheel and the simplest geometric form and leads on through easy steps to elaborate textile designs, rich wall decorations, and the general color design of interiors. This course is prerequisite to Textiles, and Advanced Design. Open to all students.

5 units, autumn and *spring quarters (STARKS)
Lec. MTWThF 8; Lab. hours at student's convenience
*Autumn, 6; spring, 12*

**4. Perspective.**—A series of problems in form presentation; in part free-hand, in part drawn with instruments, and involving the various principles of perspective and shades and shadows. The latter part of the course involves drawings from actual buildings and placing figures in various distances and elevations. Open to all students and recommended as preparation to Course 5.

5 units, winter quarter (CLARK) MTWThF 11
4 units, *summer quarter (CLARK) MTWThF 8
*Winter, 13; summer, 8*

**7. Landscape.**—Working outdoors in pencil, charcoal, and colored crayons. The chief work of the class is bent toward large 20"×25" drawings in color, one being made each day, thus developing power to think intently on the essential elements in design, of form, color value, and the selection of significant elements which make pictures. As a necessary accompaniment to the large drawings, each student carries a sketch book in which small notes

of compositions are made. From discussions and selection of these the large subjects are chosen. Open to all students.
5 units, spring quarter (STARKS) MTWThF 1:05–4:05
*Spring, 14*

**8. Free-hand Sketching.**—Daily pencil sketching of objects, figures, and animals to develop graphic facility. Weekly conferences for instruction and criticism. For art majors.
1 unit, winter and *spring quarters (FARMER) Consultation hour by arrangement
*Winter, 3; spring, 2*

**102. Advanced Free-hand Construction Drawing.**—A course dealing with the subject matter of Course 2, for advanced students.
5 units, winter quarter (FARMER) MTWThF 10
*Winter, 2*

**103. Advanced Color Design.**—The continuation of Course 3.
5 units, autumn, *winter, and *spring quarters (STARKS) MTWThF 8
*Autumn, 5; winter, 11; spring, 8*

**105. Art of House Design.**—The course is a systematic study of the fundamental principles which underlie taste, convenience, and economy in house designing and furnishing. The principles and necessity of civic planning are also given brief consideration. The subject matter treated is of such universal interest and importance that the exercises assigned are kept well within the accomplishment of earnest students even though they may have had but little training in drawing. However, a great deal of drawing, both mechanical and free-hand, is required in the course as the most efficient means to the understanding of design in proportion, line, and surface, and sensitiveness to beauty of all kinds. The first half deals with types of exteriors and their design and plans; the second half with interior treatment, furniture, yard, and civic planning. A few trips of observation will be made in the suburban towns toward San Francisco. Previous experience in free-hand and perspective drawing will facilitate advancement in the course. Open to all students who have had one technical course such as 1, 2, 3, or 4, or the equivalent.
5 units, autumn quarter (CLARK) MTWThF 11
4 units, *summer quarter (CLARK) MTWThF 11
*Autumn, 11; summer, 8*

**106. Lectures on Painters.**—First half: The Renaissance from Giotto to Velasquez. Second half: The Nineteenth Century and Present Time. The course is conducted with the use of lantern slides, each student being furnished with a collection of prints selected from the University Prints Series, and blueprints prepared for this course. Open to all students.
5 units, autumn and *winter quarters (CLARK) MTWThF 9
4 units, *summer quarter (CLARK) MTWThF 9
*Autumn, 23; winter, 36; summer, 21*

**107. Advanced Landscape.**
3 to 5 units, winter quarter (STARKS) By arrangement
*Winter, 4*

**108. Advanced Free-hand Sketching.**—Dealing with the subject matter of Course 8, for advanced students.
1 unit, summer quarter (FARMER) Consultation hour by arrangement
*Summer, 1*

**109. Metal Work.**
5 units, autumn quarter (CLARK) By arrangement
*Autumn, 3*

**109. Independent Creative Work.**
3 to 5 units, spring and *summer quarters (FARMER)
*Spring, 12; summer, 2*

**110. Illustration.**—Figure drawing and pictorial composition. The course aims to develop facility in strong, well-composed pictorial expression. Study is made of the relationship of compositional form to pictorial content and of the human figure as a subject of graphic expression. Drawing in charcoal and colored chalks. Prerequisites: Courses 1 and 2.
5 units, winter quarter (FARMER) MTWThF 1:05–4:05
*Winter, 10*

**111. Posters and Lettering.**—A study of Gothic, Roman, and modern letter styles and practice in executing them, both drafted and free-hand, with pen and brush. A study of poster composition with chief interest in effective line and color mass and the relation of compositional form to subject matter.
5 units, spring quarter (FARMER) MTWThF 1:05–4:05
4 units, *summer quarter (FARMER) MTWThF 1:05–4:05
*Spring, 10; summer, 8*

**115. Science Drawing.**—A course designed to teach science majors the rudiments of drawing. It includes the drawing of simple scientific subjects in pen, outline, line and stipple shading, wash, line and wash. Especial attention is paid to the needs of individual students. Open to science and medical students on advice.
1 unit, autumn quarter (STARKS) MWF 9
*Autumn, 10*

**116. Interior Decoration.**—A short review of the history of interior architecture and decoration in Europe and America, with special reference to the cultural background of the times. A study is made of the development of the modern style in the domestic interior as an expression of modern thought and culture, and of the suitability of types of arrangement and decoration to modern social and esthetic needs.
5 units, spring quarter (FARMER) MTWThF 11
*Spring, 21*

**200. Special and Seminar Courses.**—Advanced work in connection with Courses 1 to 116, or special fields of study and survey, for graduate students in accordance with their individual purposes.

For students working for the Master's degree weekly conferences are held for direction of work and reports.
5 units, winter and summer quarters (CLARK)
*Winter, 2; summer, 6*

**206. Teachers' Course in Graphic Art.**—For intending teachers of art; discussion of aims and methods of drawing and art instruction in the public schools. A study of the development of the artistic expression in the child in the fields of drawing, design, crafts, and art appreciation. Theory and practice in organization of courses of study for the elementary and secondary schools. Open only to Upper Division students.
3 units, spring quarter (FARMER) MWF 9
3 units, *summer quarter (FARMER) MTWTh 10
*Spring, 3; summer, 5*

# SCHOOL OF ENGINEERING

THEODORE JESSE HOOVER, Dean
CHARLES MOSER, Secretary

The School of Engineering includes the following departments: Civil Engineering; Electrical Engineering; Mechanical Engineering; Military Science and Tactics; Mining Engineering.

The faculty of the School consists of the Dean and all members of the faculties of the component departments.

The School offers a single four-year undergraduate curriculum leading to the degree of Bachelor of Arts (in Engineering), and various two-year graduate curricula, administered by the departments of the School leading to the degree of Engineer.

## UNDERGRADUATE DIVISION

### ADMISSION OF UNDERGRADUATES TO THE SCHOOL

Requirements for admission to undergraduate standing are those defined by the University (see pages 117–125).

A prospective engineering student should anticipate Lower Division requirements of the University and certain prerequisites to the first year's work in Mathematics by offering among the units of entrance credit as many as possible of the following:

Four units in English
Three units in one foreign language (or two in each of two foreign languages)
One unit in either Biology, Botany, Physiology, or Zoölogy (preferably Biology)
One unit in Physics
One unit in Chemistry
One unit in American History (or American History and Civics), and, if possible, one unit in Ancient or European History
One unit in Plane Geometry
Two units in Algebra
One-half unit in Trigonometry
One-half unit in Mechanical Drawing

A new student who has been admitted to the University with Upper Division standing may be eligible for admission to the School of Engineering. Application is made at the office of the School and is gained by formal registration in the School (see below).

### REGISTRATION OF UNDERGRADUATES

Prior to completing the Lower Division requirements all students register in the Lower Division. Upon completion of Lower Division requirements and during his continuance in Upper Division standing, the student of engineering registers in the School of Engineering.

*Initial registration in the School.*—A student with Upper Division standing registers for the first time in the School of Engineering in the following manner:

1. He prepares his program for the initial quarter in consultation with his adviser, a member of the Registration Committee of the School.

2. He submits his program to the Dean of the School for approval.

3. He files the approved program at the Registrar's Office on the day of registration.

*Subsequent registration in the School.*—During the first quarter of registration in the School, the student prepares and submits for the approval of the Registration Committee of the School a tentative program for the remaining quarters of undergraduate work.

Before the end of each quarter the student may register in advance for the next quarter.

*Choice of branch of engineering.*—A student of engineering should choose his major field of engineering as soon as possible in order that the elective units in his undergraduate curriculum may be advantageously devoted to preparation for work in that field. Delay in making this choice may lead to difficulty in fulfilling the requirements for the degree of Engineer within the normal period.

## Undergraduate Engineering Curriculum

The prescribed four-year undergraduate engineering curriculum is set forth below in schedule form. The sequence of courses shown in the schedule will be modified, as far as requirements of the Lower Division and prerequisites permit, to meet the needs of the individual student, and to balance the size of the various classes in any one subject. Necessary adjustment of schedule will usually be made when the student confers with his faculty adviser.

*Design of the curriculum.*—The prescribed undergraduate curriculum is designed to give the student the fundamentals of an engineering education without specialization; it recognizes the fact that the same basic principles are used by all engineers in the solution of their problems. It is planned to supplement the preparation of high school and Lower Division with studies which will broaden the student's outlook, stimulate his interests, disclose the range of his aptitudes, and discover those lines of effort for which he is best fitted. The curriculum includes twenty-two units of free electives and twenty-two units of restricted electives.

## Prescribed Undergraduate Engineering Curriculum and Typical Schedule

This schedule presupposes entrance credit in Mathematics sufficient to admit to Mathematics 10 (see p. 414), two years of Foreign Language, Chemistry, Biological Science, American (or other) History, and one-half year in Mechanical Drawing. If these entrance credits are not presented, certain adjustments must be made. These adjustments may delay graduation; but deficiency in Chemistry can be made up during the first year by taking Chemistry 1, 2, 3, and 4; deficiency in one of the two units of Foreign Language can be made up by taking five instead of three units in each quarter of the first year, and a deficiency in one-half unit of Mathematics can be made up by taking an appropriate three-unit course in the first quarter of the first year, and starting Mathematics 10 in the second quarter, thereby adding three units to the schedule of the third quarter of the second year. Any student with more serious deficiencies in these subjects, and any deficiencies in Biological Science or History, should receive advice from the Registration Committee of the School of Engineering.

## First Year, Total Units, 44

| Subject | Course No. | Quarters Offered | Typical Schedule Autumn | Winter | Spring |
|---|---|---|---|---|---|
| Survey of Engineering | Engr. 1 | A | 1 | .. | .. |
| Foreign Language | | A W S | 3 | 3 | 3 |
| Lettering | Engr. 2 | S | .. | 1 | .. |
| General Chemistry | Chem. 10, 11, 12 | | 4 | 4 | 4 |
| Analytical Geometry | Math. 10, 11 | A W S | 3 | 3 | .. |
| Calculus | Math. 21 | A W S | .. | .. | 3 |
| Citizenship | Citizenship 1, 2, 3 | | 4 | 4 | 4 |
| Total | | | 15 | 15 | 14 |

## Second Year, Total Units, 45

| Subject | Course No. | Quarters Offered | Typical Schedule Autumn | Winter | Spring |
|---|---|---|---|---|---|
| English Composition | Engl. 2a, 2b | A W S | 3 | .. | 3 |
| †Extemporaneous Speaking | Engl. 7 | A W S | .. | 3 | .. |
| Calculus | Math. 22, 23 | A W S | 3 | 3 | .. |
| Heat | Phys. 33, 34 | W | .. | 4 | .. |
| Electricity | Phys. 35, 36 | S | .. | .. | 4 |
| †Descriptive Geometry | M.E. 10 | A W S | 4 | .. | .. |
| †Engineering Drawing | M.E. 11 | A W S | .. | .. | 4 |
| †Engineering Shops | M.E. 1 or 2 | A W S | 2 | .. | .. |
| History | | | 3 | 3 | 3 |
| †Elementary Surveying | C.E. 20 | A W S | .. | 3 | .. |
| Total | | | 15 | 16 | 14 |

## Third Year, Total Units, 46

| Subject | Course No. | Quarters Offered | Typical Schedule Autumn | Winter | Spring |
|---|---|---|---|---|---|
| Theoretical Mechanics | C.E. 99 | A S | 5 | .. | .. |
| Theoretical Mechanics | C.E. 100 | W | .. | 5 | .. |
| Hydraulics | C.E. 106 | S | .. | .. | 5 |
| Engineering Geology | Geol. 1a | A | 5 | .. | .. |
| Electricity in Engineering | E.E. 102, 103 | | .. | 3 | 3 |
| †Engineering Shops | M.E. 1, 2, or 3 | A W S | 2 | .. | .. |
| Exposition | Engl. 131 | A W | .. | 3 | .. |
| §Electives | | | 3 | 4 | 8 |
| Total | | | 15 | 15 | 16 |

## Fourth Year, Total Units, 45

| Subject | Course No. | Quarters Offered | Typical Schedule Autumn | Winter | Spring |
|---|---|---|---|---|---|
| Mechanics of Materials | C.E. 110 | A | 5 | .. | .. |
| Pyrometallurgy, Iron and Steel | Min. 105 | W | .. | 3 | .. |
| Engineering Thermodynamics | M.E. 132 | A | 3 | .. | .. |
| Heat Power Laboratory | M.E. 122 | A W | .. | 2 | .. |
| Engineering Economics | C.E. 130 | S | .. | .. | 3 |
| §Electives | | | 7 | 10 | 12 |
| Total | | | 15 | 15 | 15 |

† The number of students admitted to this course each quarter is limited, and it is desirable to have the total enrollment of the year in the course equally apportioned to the autumn, winter, and spring quarters.

§ Of the forty-four units of electives, twenty-two are intended to provide for prerequisites to graduate work in the department of the student's choice and should be largely devoted to undergraduate courses recommended by that department. The remaining electives (twenty-two units) must be chosen from the courses listed under Groups A and B, not less than eight units from each group.

## Electives

### GROUP A

| Course No. | Subject | Units and Quarter | Hours |
|---|---|---|---|
| Bact. 100 | General Bacteriology | (5-S) | MWF 1–4 |
| Bact. 101 | Sanitary Bacteriology | (6-W) | MWF 1–4 |
| Bact. 102 | Sanitary Biology | (3-S) | T 9; ThS 9–12 |
| Chem. 20 | Qualitative Analysis | (3-W) | MWF 1–4 |
| Chem. 121 | Organic Chemistry | (3-A) | MWF 11 |
| Chem. 123 | Organic Chemistry | (3-W) | MWF 11 |
| Chem. 136 | Sanitary Chemistry | (3-A) | W 9; F 1–4; S 9–12 |
| C.E. 116 | Empirical Equations | (2-S) | TTh 9 |
| C.E. 117 | Engineering Mathematics | (3-A) | MWF 11 |
| C.E. 118 | Differential Equations | (3-S) | MWF 9 |
| Econ. 4 | Elements of Accounts | (5-AWS) | |
| Econ. 6a | Introduction to Statistical Methods | (5-AWS) | |
| Econ. 6b | Introduction to Statistical Methods | (5-S) | |
| Econ. 119 | Accountancy of Investment | (4-AWS) | |
| Econ. 120 | Lectures on Corporation Finance | (3-W) | |
| Engl. 8 | Public Speaking | (3-AW) | Autumn MWF 10, Winter MWF 9 |
| Engl. 132 | Argumentation | (3-A) | MWF 9 |
| Geol. 101 | Physical Geology | (5-S) | MTWThF 9 |
| Geol. 102 | Historical Geology | (5-W) | MTWThF 9 |
| Geol. 121 | Common Minerals and Rocks | (4-S) | WF 11; TTh 1–4 |
| Geol. 141 | Systematic Paleontology | (4-A) | MWF 10 |
| Geol. 160 | Ground Water Geology | (4-A) | MTWTh 8 |
| Graphic Art 4 | Perspective | (5-WS) | |
| Law 101 | Business Law I | (3-A) | |
| Law 102 | Business Law II | (3-W) | |
| Law 103 | Business Law III | (3-S) | |
| Math. 120 | Determinants, Matrices, and Probability | (3-A) | MWF 10 |
| Math. 125 | The Mathematics of Statistical Infe ence | (3-WS) | MWF 10 |
| Math. 130 | Advanced Calculus I | (3-A) | MWF 11 |
| Math. 131 | Advanced Calculus II | (3-W) | MWF 11 |
| Math. 132 | Advanced Calculus III | (3-S) | MWF 11 |
| Math. 161 | Practical Astronomy | (3 or 4-S) | MWF 10 |
| Math. 163 | Adjustment of Observations | (3-A) | MWF 11 |
| Math. 164 | Geodesy | (3-A) | By arrangement |
| Philos. 1 | Logic | (5-A) | TWThF 9 |
| Philos. 7 | Introduction to Philosophy | (5-Summer) | TWThF 10 |
| Phys. 25 or 101 | Modern Physics | (3-S) | TThS 8 or 10 |
| Phys. 107 and 108 | Electrical Measurements | (2-A) | W 8; Lab. W Th 1–4 |
| Phys. 111 | Light | (4 or 5-A) | TTh 8; Lab. (2 or 3 periods) by arrangement |
| Psych. 101 | Principles of Psychology | (3-W) | MWF 9 |
| Zoöl. 102 | Insects and Disease | (2-W) | TTh 9 |

### GROUP B

| Course No. | Subject | Units and Quarter | Hours |
|---|---|---|---|
| C.E. 101 | Engineering Computation | (2-W) | MW 11 |
| C.E. 103 | Engineering Diagrams | (2-A) | TTh 11 |
| C.E. 104 | Nomographic Drawing | (1 or 2-A) | By arrangement |
| C.E. 105 | Graphic Statics | (1-W) | F 11 |
| C.E. 125 | Advanced Surveying | (3-A) | Fld. and Dft. WThF 1–4 |
| C.E. 131 | Problems in Engineering Economics | (1 or more-AWS) | By arrangement |
| C.E. 138 | Specifications and Contracts | (3-A) | MWF 11 |
| C.E. 190 | Materials of Construction | (3-A) | MWF 11 |
| C.E. 191 | Materials of Construction | (2-AW) | Two afternoons by arrangement |
| E.E. 104 | Fundamentals of Electric Circuits | (2-A) | TTh 10 |
| E.E. 108 | Illumination | (2-W) | MF 10 |
| E.E. 109 | Illumination | (2-S) | T 11; Lab. by arrangement |
| E.E. 124 | Direct Current Machinery Laboratory | (4-W) | M or F 1–4; S 9–12 |

GROUP B—*Continued*

| Course No. | Subject | Units and Quarter | Hours |
|---|---|---|---|
| M.E. 1 | Forge Practice | (2-AWS) | By arrangement |
| M.E. 2 | Foundry Practice | (2-AWS) | Heats W 1–4 by arrangement |
| M.E. 3 | Machine Shop Practice | (2-AWS) | By arrangement |
| M.E. 4 | Heat Treatment Practice | (2-AWS) | By arrangement |
| M.E. 113 | Elementary Machine Design | (3-W) | MWF 10 |
| | | (1-W) | W 1–4 |
| M.E. 123 | Heat Power Laboratory | (3-S) | Lab. 1–4 by arrangement |
| M.E. 133 | Heat Engines | (4-W) | Lec.MWF 10; problem work as arranged |
| Mil.S. 151 | Materiel | (2-A) | |
| Mil.S. 152 | Ammunition and Explosives | (2-S) | |
| Mil.S. 154 | Materiel | (2-W) | |
| Mil.S. 156 | Military Law and Administration | (2-W) | |
| Min. 101 | Principles of Mining | (3-A) | MWF 8 |
| Min. 102 | Principles of Metallurgy | (5-W) | MTWThF 10 |
| Min. 103 | Principles of Petroleum Mining | (3-S) | MWF 10 |
| Min. 104 | General Ceramics | (3-A) | MWF 10 |
| Min. 108 | Testing of Fuels and Lubricants | (3-W) | TTh 9; Lab. 1 afternoon by arrangement |

### Degree of Bachelor of Arts in Engineering

Upon completion of the prescribed curriculum, the student will be recommended by the School of Engineering for the degree of Bachelor of Arts in Engineering.

## GRADUATE DIVISION

### Admission of Graduates to the School

A student with graduate standing in the University (see page 121) obtains admission to the School of Engineering by registration, not in the office of the School, but in the office of the department in which he has chosen to pursue his major study.

Admission to a department does not imply acceptance as a candidate for an advanced degree (see under "Degree of Engineer," p. 256).

### Registration of Graduates

*Initial registration in a department.*—A student with graduate standing in the University registers for the first time in a department of the School in the following manner:

1. He prepares his program for the initial quarter in consultation with the professor in whose field lies the student's major study;
2. He submits his program to the department for approval;
3. He files the approved program at the Registrar's Office on the day of registration.

*Subsequent registration in the department.*—After the satisfactory completion of one quarter of graduate work in a department, the student prepares, in consultation as stated above with his major professor, and presents to the department for approval a tentative program for all his future quarters in the department. The program of the candidate for the degree of Engineer must meet the requirements stated under "Program of Study" (p. 257).

Formal approval of the complete program may be required by the department as a prerequisite to the student's continued registration in the department.

Before the end of each quarter the student should register in advance for the next quarter in order that his program may receive adequate reconsideration.

The formal approval of a complete program, either original or revised, does not imply recommendation of the student for admission to candidacy for an advanced degree (see under "Degree of Engineer," below).

### Graduate Engineering Curricula

Each department of the School offers one or more two-year graduate curricula, as follows:

*Civil Engineering*
Civil Engineering Administration
Highway Engineering
Hydraulic Engineering
Railroad Engineering
Sanitary Engineering
Structural Engineering

*Electrical Engineering*
Communication Engineering
Electrical Engineering Administration
Electrical Power Engineering
High-Voltage Engineering
Illumination Engineering

*Mechanical Engineering*
Aëronautic Engineering
Automotive Engineering
Heat and Power Engineering
Machine Design
Mechanical Engineering Administration

*Military Science and Tactics*
Ordnance

*Mining Engineering*
Ceramic Engineering
Metallurgical Engineering
Mining Engineering
Mining Engineering Administration
Petroleum Engineering

The typical graduate curriculum in any field listed above may be had upon application to the department concerned.

*Independent Study: Electives.*—With the approval of the instructors concerned the graduate may elect to pursue some subjects of his chosen curriculum by independent study or research instead of by joining regular classes. After consultation with the professor concerned with the special field of the curriculum, the graduate is free to plan his curriculum within certain limits which will be set forth in the typical curriculum mentioned above.

### Degree of Engineer

*Admission to candidacy.*—Admission to candidacy for the degree of Engineer is granted by the University Committee on Graduate Study to the holder of a Bachelor's degree from this University, or its equivalent, on the basis of an application (1) made in quadruplicate on the blank provided by the Registrar's Office, (2) setting forth the program of study and the subject of the thesis, (3) formally approved by the student's major department, (4) formally approved by the School of Engineering, and (5) filed with the Registrar not later than the fourth week of the quarter preceding that in which the degree is to be granted.

Application once submitted must be kept on file and may not be withdrawn even if substitutes are filed and accepted.

*Residence.*—Six quarters in residence are required for the degree of Engineer. A longer period of residence will be necessary for candidates who are inadequately prepared or who devote less than the normal proportion of

time to their studies. The residence requirement may be waived in part in exceptional cases by the University Committee on Graduate Study upon recommendation of the department and approval of the School of Engineering.

*Program of study.*—The program of study must satisfy the student's department and include ninety units of which at least sixty units must be devoted to advanced or graduate study in the major subject or intimately allied subjects.

*Approval of application.*—The student should present in quadruplicate his application for admission to candidacy, made as directed under (1) and (2) above, to his major department.

The department will approve the application upon satisfactory evidence that the student is adequately prepared to complete the accepted program of study and that he is likely to complete the program within the scheduled time and in a creditable manner.

The department will transmit each approved application for admission to candidacy for the degree of Engineer through the prescribed channel to the University Committee on Graduate Study.

*Thesis.*—A copy of the thesis, bearing the approval of the instructor under whose supervision it was prepared, must be submitted to the University Committee on Graduate Study by the date on which instruction closes for the quarter in which the degree is to be conferred. This copy shall be the original, not a carbon copy, typed on paper of standard size and weight, with a title page of the form prescribed by the University Committee on Graduate Study, and suitably bound. The department may require a second copy of the thesis for the department files. The thesis upon acceptance will be placed in the University Library.

*Examinations.*—Final or general examinations of the candidate may be prescribed by the School or Department.

*Recommendation.*—Upon the satisfactory completion of the foregoing requirements and the receipt of the written recommendation of the department bearing the written approval of the School, the University Committee on Graduate Study will recommend that the University confer upon the candidate the degree of Engineer in the department and subdivision of engineering in which his thesis lies.

### Degree of Doctor of Philosophy

For regulations in regard to the degree of Doctor of Philosophy see pages 171–173.

## COURSES OF INSTRUCTION

### Elementary Engineering

**1. Analysis of the Engineering Field.**—A survey of the main activities of the engineering profession, designed to guide the student in the choice of his special field, and to outline and explain the curricula. Required of all engineering students.

1 unit, winter quarter (School of Engineering Faculty) [Not given in 1930–31]

**2. Lettering.**—A training in engineering lettering and title making. Open

to all students, and required of all students in Engineering, in Engineering Chemistry, or in Geology, whether or not they have entrance credit in mechanical drawing. (This requirement is waived, however, for a student who satisfies the instructor that he has had the equivalent of this course by submitting certified work in lettering or by passing a special examination.)

1 unit, autumn and winter quarters (THOMAS) W 1:05–4:05, or F 1:05–4:05
*Autumn, 58; winter, 75*

**3. Linear Drawing.**—A training in the use of drafting instruments the purpose of which is to enable the student to construct accurate pencil drawings and make clean-cut ink lines. Required of all students in Engineering, in Engineering Chemistry, or Geology who have not received equivalent training in high school or elsewhere. Students who have entrance credit in mechanical drawing may not receive university credit for this course.

The instruments and equipment for this course cost from thirty to forty dollars. Students are cautioned against purchasing cheap, poorly made drawing instruments.

1 unit, autumn and *winter quarters (THOMAS) W 1:05–4:05, or F 1:05–4:05
*Autumn, 15; winter, 3*

*Fees:* Course 2, $1; Course 3, $4.

## CIVIL ENGINEERING

CHARLES DAVID MARX, LEANDER MILLER HOSKINS, CHARLES BENJAMIN WING, Professors Emeritus

JOHN CHARLES LOUNSBURY FISH, HALCOTT CADWALADER MORENO, CHARLES MOSER, LEON BENEDICT REYNOLDS, Professors

EUGENE LODEWICK GRANT, EARL CHARLES THOMAS, JAMES BERTRAND WELLS, Associate Professors

PAUL JAY BEARD, Assistant Professor

HARVEY OREN BANKS, ALLAN JAMES MEADOWCROFT, JOHN GORDON SUTHERLAND, Acting Instructors

*Admission and registration.*—Registration in the Department of Civil Engineering is limited to students with graduate standing in the University. Enrollment in all courses, however, is open to all students with adequate preparation. The undergraduate student in the School of Engineering who chooses Civil Engineering as his major should plan his program in consultation with this department. Detailed information regarding admission and registration will be found on pages 251–255.

*Graduate curricula.*—The department offers a two-year graduate curriculum, leading to the degree of Engineer, in each of the following fields of Civil Engineering: Civil Engineering Administration; Highway Engineering; Hydraulic Engineering; Railroad Engineering; Sanitary Engineering; Structural Engineering.

The professional curricula offered by the department consist largely of prescribed and recommended subjects. The department will supply typical programs of study in these curricula upon request. It is expected that the student's preparatory program will have included the following courses or their substantial equivalent.

| Subject | Course No. | Units |
|---|---|---|
| Graphic Statics | C.E. 105 | 1 |
| Mechanics of Materials | C.E. 111 | 5 |
| Advanced Surveying | C.E. 125 | 3 |
| Advanced Surveying | C.E. 126 | 3 |
| Engineering Surveys | C.E. 127 | 3 |
| Specifications and Contracts | C.E. 138 | 3 |
| Highway Engineering | C.E. 140 | 3 |
| Introduction to Hydraulic Engineering | C.E. 160 | 3 |
| Sewerage | C.E. 170 | 3 |
| Materials of Construction | C.E. 190 | 3 |
| Materials of Construction | C.E. 191 | 2 |
| Stress Analysis | C.E. 192 | 3 |
| Elements of Design | C.E. 193 | 5 |
| English (3 units in addition to School of Engineering requirements) | | 3 |
| | | 43 |

*Elective courses.*—Any course of the above list which the student has not completed during his undergraduate years must be included in his graduate program of study and will correspondingly reduce the time available for elective courses during his graduate years. It is, therefore, to the advantage of the undergraduate in the School of Engineering to devote as many as possible of the electives of his junior and senior years to the courses of the foregoing list. A practicable way of using the electives to this end is illustrated by the following third- and fourth-year schedules:

THIRD YEAR

| Course | Engineering School Group | Autumn | Winter | Spring |
|---|---|---|---|---|
| C.E. 125 Advanced Surveying | B | 3 | .. | .. |
| C.E. 126 Advanced Surveying | .. | .. | 3 | .. |
| C.E. 127 Engineering Surveys | .. | .. | .. | 3 |
| C.E. 105 Graphic Statics | B | .. | 1 | .. |
| English | A | .. | .. | 3 |
| Restricted Electives | A | .. | .. | 2 |
| Total | | 3 | 4 | 8 |

FOURTH YEAR

| Course | Engineering School Group | Autumn | Winter | Spring |
|---|---|---|---|---|
| C.E. 190 Materials of Construction | B | 3 | .. | .. |
| C.E. 191 Materials of Construction | B | 2 | .. | .. |
| C.E. 192 Stress Analysis | .. | .. | 3 | .. |
| C.E. 193 Elements of Design | .. | .. | .. | 5 |
| C.E. 111 Mechanics of Materials | .. | .. | 5 | .. |
| C.E. 138 Specifications and Contracts | B | 3 | .. | .. |
| C.E. 140 Highway Engineering | .. | .. | .. | 3 |
| Restricted Electives | A | .. | 3 | .. |
| Restricted Electives | B | .. | .. | 2 |
| Total | | 8 | 11 | 10 |

*Summer quarter.*—This department does not offer courses in the summer quarter but encourages the student to obtain employment on engineering projects during his summer vacations.

*Facilities.*—The University has provided in the various fields of civil engineering leading books and bound volumes of periodicals, the more useful of which are kept in the department's reading room in the engineering building.

The department's laboratories are equipped for investigating the properties of materials (including road materials) with respect to tension, compression, flexure, torsion, endurance, hardness, etc.; and for the investigation of flow in open or closed conduits, through orifices, over weirs, etc. A special laboratory has been provided in the Bacteriology Building which, together with the general equipment of the departments of Bacteriology and Chemistry, is available for students doing advanced work on qualities and properties of water and sewage as related to problems of water purification and sewage treatment.

The University mechanician shop is available, so far as the department's funds permit, for the construction of special apparatus devised by the advanced student to facilitate his investigations.

Near the University there are engineering works of great variety, under construction or operation, which are open to observation and study by engineering classes. For example, engineering works for the collection, development, storage, and distribution of water for municipal, power, and irrigation uses are nowhere more extensive and varied than on the Pacific Coast. They provide exceptional opportunities for observation and investigation. Problems relating to the disposal of city sewage and industrial wastes (from canneries, milk plants, sugar factories, etc.) are particularly perplexing due to absence of streams with sufficient flow for dilution, high average temperature producing great bacterial activity, etc. Many of these problems are unsolved and the opportunity and need for research are unlimited. Municipal sewage treatment plants of several types are located within reasonable distance.

## ENGINEERING MATHEMATICS

**99. Theoretical Mechanics.**—A course covering the fundamental principles of statics, kinematics, and kinetics, restricted mainly to coplanar forces and to plane motion of particles and of rigid bodies. The course is designed as preparation for Course 110, Mechanics of Materials. Prerequisites: Mathematics 10, 11, 21, and 22, and preferably Physics 33 and 34.

5 units, autumn and *spring quarters (Moreno) (autumn) MTWThF 9; (spring) MTWThF 10

*Autumn, 114; spring, 23*

**100. Theoretical Mechanics.**—Continuation of Course 99.

5 units, winter quarter (Moreno) MTWThF 9

*Winter, 151*

**101. Engineering Computation.**—A study of numerical methods, approximate numbers and errors.

2 units, winter quarter (Moreno) MW 11

*Winter, 34*

**103. Engineering Diagrams.**—Nomographs and the construction and use of certain types of engineering diagrams.

2 units, autumn quarter (Moreno) TTh 11

*Autumn, 26*

**104. Nomographic Drawing.**—A course in advanced drafting, supplementary to 103. Prerequisites: Engineering 2 and 3.

1 or 2 units, autumn quarter (Thomas) By arrangement

*Autumn, 4*

**105. Graphic Statics.**—A supplementary course to Civil Engineering 99, which may be taken in conjunction with it.

1 unit, winter quarter (Moreno) F 11

*Winter, 32*

**105a. Graphic Statics.**—A course supplementary to Civil Engineering 105. Special problems; practical applications of graphic methods to design problems. Open by permission to students who have had Course 105 or equivalent.
1 or 2 units, spring quarter (MORENO) By arrangement
*Spring, 9*

**116. Empirical Equations.**—Treats of empirical formulas, interpolation, and approximate methods.
2 units, spring quarter (MORENO) TTh 9
*Spring, 41*

**117. Engineering Mathematics.**—A prerequisite to Electrical Engineering 202. The course includes those parts of complex numbers, infinite series, hyperbolic functions, differential equations, and Fourier's series that are helpful in understanding the power line equations. Prerequisites: Mathematics 21, 22, 23, and some knowledge of alternating currents.
3 units, autumn quarter (MORENO) MWF 11
*Autumn, 24*

**118. Differential Equations in Engineering.**—In this course special attention is given to the setting up of the differential equation, the problems being drawn from various fields of engineering. Prerequisites: Grade B in Calculus and Mechanics.
3 units, spring quarter (MORENO) MWF 9
*Spring, 33*

**218. Directed Reading.**—Reading courses in advanced engineering mathematics may be arranged upon consultation with and approval of the instructor. Registration only by permission of the instructor.
1 unit, winter and *spring quarters (MORENO) By arrangement
*Winter, 3; spring, 1*

## MECHANICS OF ENGINEERING

**10. Strength of Materials.**—A course in materials with reference to their physical properties and methods of testing. Lectures and laboratory. The laboratory program is arranged to meet the needs of students in various fields. Open to all students of the University without prerequisites.
2 units, autumn and *winter quarters (MOSER) TTh 8
*Autumn, 3; winter, 5*

**106. Hydraulics.**—Lectures and laboratory problems. Fluid pressure and equilibrium, flow of water through orifices, over weirs, in open and closed conduits. Laboratory: Calibration of instruments. Measurements of pressure, velocity, flow, friction loss, etc., under various conditions. Open to students who have completed Course 99.
5 units, spring quarter (MOSER)
Lec. MWF 9; Lab. MWF 10–12, or TTh 9–12, or MT 1:05–4:05
*Spring, 136*

[NOTE.—See also Hydraulic courses listed under Mechanical Engineering.]

**110. Mechanics of Materials.**—Lectures and laboratory problems. Strength and elastic properties of the ordinary materials of engineering construction. Simple tension, compression, and shear. Flexure, with application to simple, continuous, and nonhomogeneous beams. Columns, torsion, repeated stress, sudden stress, resilience, etc. Testing strength and elastic properties of materials and structures. Open to students who have completed Courses 99 and 100.
5 units, autumn and *winter quarters (MOSER)
Lec. MWF 9; Lab. MWF 10–12, or TTh 9–12, or MT 1:05–4:05
*Autumn, 126; winter, 7*

**111. Mechanics of Materials.**—Continuation of Course 110 above.
5 units, winter quarter (MOSER) Lec. MWF 9; Lab. MWF 10–12, or TTh 9–12
*Winter, 15*

**212. Research.**—Investigation of materials with respect to their physical properties and the methods employed in their utilization in engineering fields. Open by permission to advanced students.
2 or more units, winter quarter (MOSER) By arrangement
*Winter, 2*

## TOPOGRAPHIC ENGINEERING

**20. Elementary Surveying.**—Field: exercises in the care and use of instruments; traverse surveys; stadia surveys; leveling. Drafting Room: plotting and adjusting traverses; computing areas; plotting profile; map drafting. Prerequisites: Engineering 2 and 3, Mathematics C.
3 units, autumn and *winter quarters (GRANT) Field and Dft. MTW 1:05–4:05
3 units, *spring quarter (GRANT, BANKS) MTW 1:05–4:05; WThF 1:05–4:05
*Autumn, 38; winter, 20; spring, 50 (2 sections)*

**125. Advanced Surveying.**—Adjustment of instruments; determination of azimuth; land surveying; base line measurement; triangulation; manipulation of the plane table. Prerequisite: Course 20.
3 units, autumn quarter (GRANT) Field and Dft. WThF 1:05–4:05
*Autumn, 12*

**126. Advanced Surveying.**—Topographic surveying; introduction to city, hydrographic, and photographic surveying; railroad and highway curves. Prerequisite: Course 20.
3 units, winter quarter (GRANT) Field and Dft. WThF 1:05–4:05
*Winter, 20*

**127. Engineering Surveys.**—The application of surveying to engineering problems. Reconnaissance, preliminary, location, construction, and maintenance surveys pertaining to railroads, highways, waterways, etc. Prerequisite: Course 126.
3 units, spring quarter (THOMAS) Field and Dft. WThF 1:05–4:05
*Spring, 16*

**228. Special Engineering Surveys.**—Courses arranged to meet special needs of students who have completed Course 127 above, or have had considerable experience in engineering surveys. (Field work can be done only when two or more students elect to pursue the same work.) Open only by permission.
1 or more units (GRANT) By arrangement
*Winter, 1*

[**Practical Astronomy.**—See Mathematics 161.]

[**Adjustment of Observations.**—See Mathematics 163.]

[**Geodesy.**—See Mathematics 164.]

## CIVIL ENGINEERING ADMINISTRATION

[The Graduate School of Business co-operates with this department in offering the curriculum of Civil Engineering Administration, and to this end provides instruction in subjects characteristic of the curriculum to the extent of one quarter or more of its required ninety units. See list of subjects below Course 233.]

**130. Elements of Engineering Economics.**—A brief survey of the business relations of the engineer: finance, accounting, statistics, valuation, public utility regulation, law, industrial relations. Engineering cost studies: problems in investment choice, compound interest, depreciation, increment

costs, load factor, estimating. Open to those who have 90 units of credit, and to others by permission.
3 units, spring quarter (GRANT) MWF 8
*Spring, 134*

**131. Problems in Engineering Economics.**—The chief purpose of this course is to afford practice in the steps of systematic investigation, from the framing and analysis of problem to the completion of final report. The student's work consists of independent investigation, from the owner's standpoint, of one or more problems within the field of engineering practice. The student may investigate a problem which has previously aroused his interest, or select from those suggested by the instructor. Oral progress report weekly. Prerequisite: Course 130.
1 or more units, autumn, *winter, *spring, and *summer quarters (FISH, GRANT)
*Autumn, 3; winter, 6; spring, 9; summer, 1*

**132. Statistics in Engineering.**—Statistical technique as a tool for the engineer. Analysis of frequency distributions, applications in depreciation studies and in hydrographic studies. Sampling theory, applications in inspection of manufactured products and in interpretation of field and laboratory data. Correlation. Graphic presentation of statistics.
2 units, winter quarter (GRANT) MW 11
*Winter, 10*

**133. Accounting in Engineering.**—A brief survey of accounting principles followed by a discussion of cost finding problems of interest to engineers.
2 units, spring quarter (GRANT) TTh 10
*Spring, 34*

**138. Specifications and Contracts.**—Development of contract principles; varieties of construction contracts; principles of specification writing; study of actual composition and arrangement of a set of specifications covering advertisement, instructions to bidders, proposal, contract, bond, and general clauses; preparation of contracts for engineering services. Lectures, collateral reading, and practice in actual writing of specifications. Open to fourth-year engineering students and to others by permission.
3 units, autumn quarter (REYNOLDS) MWF 11
*Autumn, 26*

**232. Engineering Economics.**—Independent study or investigation, from the owner's standpoint, of one or more comprehensive or advanced engineering problems in any field; with the co-operation of one or more instructors in the field in which the problem lies. Prerequisites: Civil Engineering 130, 131, and the approval of an instructor in the technical field in which the student's problem lies.
2 or more units, spring quarter (FISH) By arrangement
*Spring, 1*

**233. Civil Engineering Administration Thesis.**—Investigation of a problem in the field of Civil Engineering Administration.
(FISH) By arrangement

**Business Economics** (Graduate School of Business).

**Business Statistics** (Graduate School of Business).

**Economic and Statistical Analysis** (Graduate School of Business).

**Business Organization** (Graduate School of Business).

**Financial, Accounting, and Legal Problems of Business** (Graduate School of Business).

**Psychological Aspects of Management** (Graduate School of Business).

**Operating Problems of Management** (Graduate School of Business).
**Marketing Problems of Management** (Graduate School of Business).
**Management Control** (Graduate School of Business).

### HIGHWAY ENGINEERING

[**Highway Surveying.**—See Course 127 above.]

**140. Highway Engineering.**—An analysis of the major problems of highway engineering, including location, design, construction, maintenance, and finance. Lectures, problems, and assigned reading. Open to engineering students who have 90 units of credit and to others by permission.
3 units, autumn and *spring quarters (THOMAS) MWF 9
*Autumn, 6; spring, 9*

**141. Highway Construction.**—A study of modern roads and pavements from the point of view of the resident engineer or inspector. Plans; specifications; estimates of cost; construction surveys; selection of materials; selection of equipment; methods of construction. Lectures, problems, inspection trips, and library research. Prerequisite: Course 140 above.
3 units, winter quarter (THOMAS) By arrangement
*Winter, 5*

**241. Highway Problems.**—Individual investigation. The student selects, investigates, and reports on one or more problems of highway engineering, conferring regularly with the instructor. Open to students who have completed or who are taking Course 140, and to others by permission.
1 or more units, spring quarter (THOMAS) By arrangement
*Spring, 3*

**243. Highway Research and Thesis.**—Original study of some problem in Highway Engineering.
Autumn, winter, and spring quarters (THOMAS) [Not given in 1930–31]

### RAILROAD ENGINEERING

[**Railroad Surveying.**—See Course 127 above.]

**145. Introduction to Railroad Engineering.**—A general view of the work of converting into an operating railroad the first fruitful vision of such road; and a closer examination of one or more divisions of that work. Individual study and investigation, conferences, oral progress reports, and formal written final reports. Open to all except Lower Division students.
3 units, winter and *spring quarters (FISH) By arrangement
*Winter, 2; spring, 1*

**245. Railroad Engineering.**—Individual study or investigation, from the standpoint of the railroad company, of one or more topics or problems pertaining to one or more of the following divisions:

*Construction:* resident engineer's problems, from the point of view of the railroad or of the construction company: e.g., situation surveys, preliminary plans and estimates, choice of site and type of special structure, working drawings, staking out, inspection, monthly and final estimates, recording and filing information, instructions, reports, selection of equipment, and methods of construction.

*Location:* including topics and problems pertaining to: relation of location to income; inter-relation of train weight, grade, speed, and characteristics of the locomotive; effect of change in distance, curvature, rise and fall, and ruling grade on operating expense; pusher grades and balanced grades; improvements in line and grade.

*Structures and facilities:* e.g., yards, terminals, stations, signal systems, water supplies, and the accompanying structures.

*Maintenance.*

*Reconnaissance:* examination of country for feasible routes between two designated points, and selection of the most promising route.

At the weekly conference with the instructor the student makes oral progress report which serves as basis for discussion. Formal final report in writing is required for each separate study or investigation undertaken. Prerequisites: Civil Engineering 127, 130, and 145.

1 or more units, autumn quarter (Fish) By arrangement
*Autumn, 1*

**246. Railroad Engineering Thesis.**—Original investigation in the field of Railroad Engineering.

Autumn, winter, and spring quarters (Fish) [Not given in 1930–31]

## HYDRAULIC ENGINEERING

**160. Introduction to Hydraulic Engineering.**—A general survey of the field of hydraulic engineering as applied to problems of power, irrigation, flood control, and public water supplies. General consideration of collection, storage, distribution, and purification of water. Lectures, collateral reading, inspection trips, 3 units; problems, computations, drafting, 2 units. Prerequisite: Course 106.

3 or 5 units, autumn quarter (Reynolds) Lec. MWF 8; Dft. by arrangement
*Autumn, 10*

**161. Storage and Distribution of Water.**—A more detailed consideration of the problems of collection, storage, conveyance, and distribution of water. Rainfall, evaporation, runoff, stream gaging, dams, reservoirs, well supplies, conveyance structures, fire protection, city distribution systems. Prerequisite: Course 160.

5 units, winter quarter (Reynolds) Lec. MWF 10; Dft. by arrangement
*Winter, 5*

**262. Protection and Purification of Water Supplies.**—Quality of waters; physical, chemical, and bacteriological examination of water; relation of water supplies to disease; purification of water by aëration, sedimentation, coagulation, and filtration; water softening, deferrization, and sterilization. Lectures, collateral reading, inspection trips, and investigation of some source of municipal supply with report. Prerequisite: Course 161.

5 units, spring quarter (Reynolds) Lec. MWF 8; Dft. by arrangement
*Spring, 6*

**265. Hydraulic Research and Thesis.**—Original study of some problem of Hydraulic Engineering.

Winter quarter (Reynolds) By arrangement
*Winter, 1*

## SANITARY ENGINEERING

**170. Sewerage.**—Quantity of domestic sewage and storm water; hydraulics of sewers; sewer surveys and investigations; design of sewers and appurtenances; pumping of sewage; estimates of quantities and costs; construction methods; supervision and inspection during construction; operation and maintenance. Recitations, collateral reading, and applications by means of problems. Prerequisite: Course 106.

3 units, winter quarter (Reynolds) MWF 8
*Winter, 11*

**171. Sewer Design.**—Actual design of a sewer system for some selected city, including preliminary investigations, maps, profiles, estimate of cost, report, etc. Prerequisite: Course 170.

2 or more units, winter and *spring quarters (REYNOLDS) By arrangement
*Winter, 1; spring, 1*

**272. Sewage Disposal.**—Characteristics of sewage; disposal by dilution; treatment by means of screens, sedimentation tanks, activated sludge, contact beds, sprinkling filters, sand filters, irrigation, and disinfection; location, design, operation, and maintenance of plants. Recitations, collateral reading, inspection trips, and applications by means of problems. Prerequisite: Course 170.

3 units, spring quarter (REYNOLDS) MWF 10
*Spring, 9*

**273. Sewage Disposal Design.**—Actual design of a sewage disposal plant for some selected city, including preliminary investigations, layout, details, estimate of cost, report, etc. Prerequisite: Course 272.

2 or more units, autumn quarter (REYNOLDS) By arrangement
*Autumn, 1*

**275. Sanitary Research and Thesis.**—Original study of some problem of Sanitary Engineering.

Autumn and *winter quarters (REYNOLDS) By arrangement
*Autumn, 1; winter, 1*

The following courses listed by other departments are prescribed for sanitary engineers:

**Sanitary Chemistry** (Chemistry 136).—Designed for engineers and public health students. A study of the standard methods of water and sewage analysis and the interpretation of results. Some of the more common food determinations are discussed. One lecture, two laboratory periods a week. Prerequisite: General Chemistry.

3 units, autumn quarter (BEARD) Lec. W 9; Lab. F 1:05–4:05, S 9–12
*Autumn, 3*

**Sanitary Bacteriology** (Bacteriology 101).—A course of lectures and laboratory exercises dealing mainly with the bacteriology of food, water, and sewage. Intended primarily for sanitary engineering students, biology majors, and those planning to enter careers as public health workers. Prerequisites: General Biology and General Chemistry.

6 units, winter quarter (BEARD) Lec. MWF 1, Lab. MWF 2–4
*Winter, 10*

**Sanitary Biology** (Bacteriology 102).—Designed especially for sanitary engineers, health officers, physicians, and biochemists. Regular methods of plankton analysis, determination of the significant properties of water in relation to plants and animals, visits to ponds, water supplies, etc. Whipple's *Microscopy of Drinking Water* will be used as a guide. One lecture, one laboratory period, one field trip each week.

3 units, spring quarter (BEARD) Lec. T 9; Lab. ThS 9–12
*Spring, 16*

The following courses offered by other departments are also recommended electives in the training of sanitary engineers:

**General Hygiene** (Physical Education 150, 151).

**Individual Hygiene** (Physical Education 152).

**Group Hygiene** (Physical Education 153).

**Societal Hygiene** (Physical Education 154).

**Insects and Disease** (Zoölogy 102).

## STRUCTURAL ENGINEERING

**190. Materials of Construction.**—A study of the common materials of construction; their production, adaptation, and maintenance. Wood, stone, brick, asphalt, lime, cement, and concrete are considered. Lectures and assigned reading. Open to engineering students who have 90 units of credit, and to others by permission.

3 units, autumn quarter (THOMAS) MWF 8
*Autumn, 19*

**191. Materials of Construction.**—A laboratory course supplementing the work undertaken in Course 190. Students are required to make a series of experiments testing physical properties of the materials considered. Open to students who have taken or are taking Course 190.

2 units, autumn and *winter quarters (THOMAS) Two afternoons by arrangement
*Autumn, 10; winter, 4*

**192. Stress Analysis.**—Determination of stresses in simple framed structures such as roof trusses and highway bridges; stresses due to moving loads; distribution of stresses and pressure in retaining walls; stresses in tanks and stand pipes. Open to students who have taken or are taking Civil Engineering 110.

3 units, winter quarter (WELLS) Lec. Th 9; Dft. TW 1:05–4:05
*Winter, 27*

**193. Elements of Design.**—Detailed design of simple framed structures in timber and steel, together with bills of material and cost estimates of same; discussion of factors affecting design of details. Allowable unit stresses. Study of specifications for steel bridges, buildings, tanks, and a typical building code. Prerequisite: Course 192.

5 units, spring quarter (WELLS) Lec. TTh 9; Dft. MTW 1:05–4:05
*Spring, 22*

**292. Reinforced Concrete Design.**—Detailed design of retaining walls, girder bridges, culverts, walls and floors of buildings, and simple foundations. Discussion of specifications and application of reinforced concrete to construction; bills of materials and cost estimate for some of structures designed. Prerequisites: Courses 111, 190, 191, 193.

5 units, autumn quarter (WELLS)
*Autumn, 6* Lec. TTh 8; Dft. three afternoons by arrangement

**293. Foundations.**—Reading, seminar, and design; discussion of soil exploration, bearing tests and bearing power of soils, spread footings, pile foundations, coffer dams, open and pneumatic caissons. Special problems in design assigned. Prerequisite: Course 292.

4 units, winter quarter (WELLS) Lec. T 8; Dft. three afternoons by arrangement
*Winter, 5*

**294. Masonry Arches.**—Analysis of stresses in masonry arches and arch ribs; detailed design of arch bridge and abutments to fulfill actual requirements. Prerequisite: Course 293.

4 units, spring quarter (WELLS) By arrangement
*Spring, 4*

**295. River and Harbor Structures.**—Reading, seminar, and design; discussion of wharves, piers of timber and concrete, sea walls, and bulkhead walls. Factors affecting design and life of marine structures. Detailed design of some structure discussed to incorporate principles presented. Prerequisites: Courses 292 and 293.

4 units, autumn quarter (WELLS) By arrangement
*Autumn, 2*

**296. Structural Research and Thesis.**—Investigation and research problems in design of structures.
(Wells) By arrangement
*Winter, 2; spring, 4*

*Laboratory Fees:*—Courses 20, 191, $4 each; 125, 126, 127, $3 each; 106, $2; 110, 111, 130, 138, 160, 170, $1 each.

## ELECTRICAL ENGINEERING

Harris Joseph Ryan, Professor
Joseph Snyder Carroll, Frederick Emmons Terman, Associate Professors
William Bryan Duncan, Ward B. Kindy, Theodore Harding Morgan, Assistant Professors
Ezra Frederick Scattergood, Lecturer on Hydroelectric Power
Leo Gregory Gianini, Lecturer on Illumination

The department offers courses of instruction for three groups of engineering students:

*I. General Group.*—Courses 102 and 103, Electricity in Engineering, are offered especially for the third-year students in engineering.

*II. Dynamic Group.*—Courses 104, 105, 106, 108, 109, 124, 125, and 126 are open to fourth-year students in engineering.

*III. Advanced Electrotechnic Group.*—Courses 200, 201, 202, 203, 204, 205, 210, 211, 212, 220, 221, 222, 223, 225, 230, 240, 241, 242, 250, 251, 252, 260, 280, 290, 300, Civil Engineering 117, and electives as approved.

Undergraduate students in the School of Engineering, who plan to enter the field of electrical engineering, should select courses listed under *II. Dynamic Group* as electives in the fourth year.

The department offers curricula in the following branches of Electrical Engineering: Communication Engineering; Electrical Engineering Administration; Electrical Power Engineering; High-Voltage Engineering; Illumination Engineering.

The department maintains a measurements and standards laboratory wherein instruments are compared and calibrated in terms of the accepted international standards. It also maintains laboratories equipped and organized expressly for routine and research studies of fundamentals in electrical machinery, auxiliaries, communication, illumination, and high-voltage phenomena.

The Communication Laboratory offers facilities for the study of electrical phenomena at audio and radio frequencies. Its equipment includes an audio-frequency oscillator, apparatus for measuring small audio-frequency currents and voltages, alternating current bridges with suitable standards, high-quality loud speakers, an artificial power and telephone line, wave filters, and a large quantity of radio apparatus. A harmonic analyzer for measuring the frequency components of audio-frequency voltages and currents is part of the equipment of the Ryan Laboratory, and is available to properly qualified students working on communication problems.

The Harris J. Ryan High-Voltage Laboratory has been established by the University with the co-operation of commercial organizations in the electrical manufacturing and power industries for the instruction of advanced students and for researches by students and faculty men alone, and in co-operation with engineers appointed for the purpose by the patrons of the Laboratory. The Laboratory is located on the University grounds, adjacent to the Campus. The instruction and work in the Laboratory are supervised by the personnel of the department. The equipment of the Laboratory includes six 350-kilowatt, 350,000-volt, 60-cycle transformers, arranged for all feasible connections in series or parallel as required for maximum voltage sources ranging from 350,000 to 2,000,000 volts, single-phase, and to 1,200,000 volts, three-phase, and for use in connection therewith six 250,000-volt, crest, .0078 microfarad capacitors to constitute a 1,500,000-volt impulse voltage generator. It includes two synchronous motor-driven, sine wave, three-phase, 1,500-kilovolt-ampere generators, together with all controls and measuring facilities required for instruction and research. In addition to the main room where the 2,000,000-volt transformer set is located, the Laboratory includes rooms for the motor-generator sets, seminar, instruments, offices, and shop. The University has set aside 200 acres of land for accommodation of this Laboratory and the rights of way upon which to erect and study test specimens, conductors, and their insulating supports.

*The High-Voltage Laboratory Research Fellowship.*—Through an anonymous gift there is available in the Electrical Engineering Department of Stanford University for the academic year 1930–31 a fellowship carrying a stipend of $500, and designated by the authorities of the University the "High-Voltage Laboratory Research Fellowship."

The department promulgates high-voltage laboratory research in two categories:

I. Research undertakings as a department, in some or all of which the hearty co-operation of the holder of this fellowship will be desired.

II. Research undertakings with the approval, support, and guidance of the department to permit the definition and solution of a problem of particular interest to the individual student and of promise of helpfulness in education and practice.

*Admission to courses.*—This department admits to its courses any student of the University who has an adequate preparation for the work.

*Graduate standing.*—The requirements for graduate standing are fulfilled by graduates of colleges and universities of recognized rank. Admission to technical graduate standing does not imply admission to candidacy for an advanced degree. The requirements for admission to candidacy for the degree of Engineer in Electrical Engineering are stated on pages 256–257.

*Program of study.*—The program of study of graduate students in this department must be planned in advance and approved by the department.

*Advanced degrees.*—The departmental recommendation of candidacy for an advanced degree will be based on evidence of seriousness of purpose and capacity for independent investigation of engineering problems and the successful completion by the applicant of a curriculum equivalent to that leading to the degree of Bachelor of Arts in Engineering.

## UPPER DIVISION COURSES

**102. Electricity in Engineering.**—A general course in the more important elements of electrical engineering with special emphasis on fundamental principles. The course will include a study of the theory of circuits; instruments and measurements; generation, distribution, and utilization of electrical energy; continuous and alternating current machinery; general practice, materials, safety and fire hazards. Prerequisites: first six quarters in engineering curriculum and Physics 35 and 36. Enrollment limited to 50 students per quarter.

3 units, autumn, winter, or spring quarter (KINDY) Lec. TTh 8; Lab. T, W, or Th 1:05–4:05

*Autumn, 60; winter, 72; spring, 13*

**103. Electricity in Engineering.**—Continuation of Course 102.

3 units, winter or spring quarter (KINDY) Lec. TTh 11; Lab. T, W, or Th 1:05–4:05

*Winter, 54; spring, 66*

**104. Fundamentals of Electric Circuits.**—A course in fundamental principles of the electric and magnetic circuits, including simple alternating current circuits. Prerequisites: Courses 102 and 103 and registration in Course 124.

2 units, autumn quarter (KINDY) TTh 10

*Autumn, 29*

**105. Alternating Current Circuits.**—Principles of alternating current circuits, and their application in the determination of the performance of alternators and transformers. Prerequisites: Courses 104 and 124, and registration in Course 125.

2 units, winter quarter (MORGAN) TTh 10

*Winter, 27*

**106. Alternating Current Circuits.**—Continuation of Course 105 including a study of induction and synchronous machines and transmission lines. Prerequisites: Courses 105 and 125, and registration in Course 126.

3 units, spring quarter (MORGAN) MWF 11

*Spring, 23*

**108. Illumination.**—After discussing the place of artificial illumination in modern civilization—particularly showing the dependence of plant and office efficiency on proper lighting—the student will be furnished with a working knowledge of the principles of artificial illumination. The following applications will be discussed: shop, office, street, flood, and air-port lighting.

2 units, winter quarter (GIANINI) MF 10

*Winter, 24*

**109. Illumination.**—Continuation of Course 108, with specific applications of the fundamental principles. Lecture and laboratory.

2 units, spring quarter (GIANINI) Lec. T 11; Lab. by arrangement

*Spring, 5*

**124. Direct Current Machinery Laboratory.**—A study of the characteristic performance of direct current machines. To accompany Course 104. Prerequisite: registration in Course 104.

4 units, autumn quarter (DUNCAN) M or F 1:05–4:05 or S 9–12
Preparation period by arrangement

*Autumn, 29*

**125. Alternating Current Machinery Laboratory.**—Alternating current circuits; performance of alternators, transformers, and induction motors;

transformer polyphase connections. To accompany Course 105. Prerequisite: registration in Course 105.
4 units, winter quarter (DUNCAN) M or F 1:05–4:05 or S 9–12
Preparation period by arrangement
*Winter, 26*

**126. Alternating Current Machinery Laboratory.**—Characteristic performance of induction and synchronous machines, series motors, converters, and rectifiers. Prerequisite: registration in Course 106.
4 units, spring quarter (DUNCAN) M or F 1:05–4:05 or S 9–12
Preparation period by arrangement
*Spring, 23*

## COURSES PRIMARILY FOR GRADUATES

**200. Seminar.**—A weekly conference for the discussion of current electrical engineering literature and special topics.
1 unit, autumn, winter, and spring quarters (RYAN) Th 11
*Autumn, 25; winter, 33; spring, 32*

**201. The Electric Circuit.**—A problem course in the relations involved between electromotive forces, currents, and energies in electric machines.
2 units, winter quarter (KINDY) MW 9
*Winter, 8*

**202. Transmission Circuits.**—The theory of circuits transmitting electrical energy, including power and telephone lines, transmission networks, and circle diagrams. Prerequisites: Civil Engineering 117 and Course 210.
4 units, winter quarter (TERMAN) TTh 10; Lab. by arrangement
*Winter, 19*

**203. Transmission Circuits.**—Continuation of Course 202, covering such topics as artificial lines, wave filters, electric waves, stability of transmission systems, etc.
4 units, spring quarter (TERMAN) TTh 10; Lab. by arrangement
*Spring, 14*

**204. Advanced Electric Circuits.**—The analysis and solution of advanced circuit problems.
2 units, autumn quarter (TERMAN) [Not given in 1930–31]

**205. Transients.**
4 units, autumn quarter (MORGAN, TERMAN) By arrangement
*Autumn, 7*

**210. Power Circuits and Equipment.**—A combined lecture and laboratory course in characteristic phenomena involved in the generation, transmission, distribution, and utilization of electric power.
5 units, autumn quarter (MORGAN) MWF 10; Lab. by arrangement
*Autumn, 13*

**211. Power Circuits and Equipment.**—A continuation of Course 210.
3 units, winter quarter (MORGAN) By arrangement
*Winter, 6*

**212. Power Circuits and Equipment.**—A continuation of Course 211.
3 units, spring quarter (MORGAN) By arrangement
*Spring, 6*

**213. Elements of Transmission Line Design and Construction.**
2 units, autumn and *winter quarters (DUNCAN) By arrangement
*Autumn, 9; winter, 1*

**214. Equipment Research.** Advanced electric circuits, machinery, meters, controls, materials.
(KINDY, MORGAN, TERMAN) By arrangement
*Autumn, 3; winter, 7; spring, 4*

**220. Radio Communication.**—The generation, radiation, reception, and amplification of high-frequency alternating current energy, and the properties of circuits at high frequencies. Prerequisite: Course 105.
4 units, autumn quarter (TERMAN) TTh 9; Lab. by arrangement
*Autumn, 9*

**221. Radio Communication.**—A continuation of Course 220.
4 units, winter quarter (TERMAN) MW 11; Lab. by arrangement
*Winter, 6*

**222. Radio Communication.**—Advanced course in radio phenomena.
3 units, spring quarter (TERMAN) By arrangement
*Spring, 6*

**223. Radio Communication.**—Recent developments in radio communication.
3 units, autumn, *winter, and *spring quarters (TERMAN)
*Autumn, 3; winter, 2; spring, 2*

**225. Telephone Communication.**—Recent developments in wire communication.
2 units, spring quarter (TERMAN) By arrangement
*Spring, 10*

**230. Communication Research.**
(TERMAN) By arrangement
*Autumn, 2; winter, 1; spring, 6; summer, 1*

**240. High-Voltage Engineering Laboratory, Introductory.**
5 units, autumn quarter (RYAN, CARROLL) By arrangement
*Autumn, 14*

**241. High-Voltage Laboratory, Measurements.**
5 units, autumn and *winter quarters (RYAN, CARROLL) By arrangement
*Autumn, 1; winter, 14*

**242. High-Voltage Laboratory, Insulator Characteristics.**
5 units, spring quarter (RYAN, CARROLL) By arrangement
*Spring, 9*

**250. High-Voltage Engineering.**—Elements in design, operation, and maintenance.
10 units, autumn quarter (RYAN, CARROLL) By arrangement
*Autumn, 3*

**251. High-Voltage Engineering Laboratory.**—Advanced study and research.
10 units, winter quarter (RYAN, CARROLL) By arrangement
*Winter, 4*

**252. High-Voltage Engineering Laboratory.**—Continuation of Course 251.
10 units, spring quarter (RYAN, CARROLL) By arrangement
*Spring, 2*

**253. High-Voltage Laboratory Research.**
4 units, autumn quarter (RYAN) By arrangement
*Autumn, 1*

**260. Illumination Research.**
(GIANINI) By arrangement
*Spring, 1*

**280. Electrical Engineering Professional Papers.**
(FACULTY MEMBERS AS ASSIGNED) By arrangement
*Autumn, 7; winter, 9; spring, 7*

**290. Research: Study of Engineering Data.**
(FACULTY MEMBERS AS ASSIGNED) By arrangement
*Autumn, 7; winter, 8; spring, 3*

**300. Thesis.**
(Faculty Members as Assigned) By arrangement
*Autumn, 2; winter, 10; spring, 11; summer, 2*

The Stanford Branch of the American Institute of Electrical Engineers is an organization authorized by the Institute and maintained by the students for the discussion of the *Journal* of the Institute, and other topics.

*Laboratory Fees.*—$1 per unit of University credit.

*Syllabus Fees.*—Applicable to syllabus, lantern slides, and charts, 50c to $1 per course.

## MECHANICAL ENGINEERING

William Frederick Durand, Professor Emeritus
Edward John Stanley, Assistant Professor Emeritus

Arthur Boquer Domonoske, Everett Parker Lesley, Guido Hugo Marx, Alfred Salem Niles, Elliott Gray Reid, Professors
Charles Norman Cross, Boynton Morris Green, Horatio Ward Stebbins, Associate Professors
Albert Clarence Gullikson, Lydik Siegumfeldt Jacobsen, Assistant Professors
Robert Henry Harcourt, James Bennett Liggett, Theron Josiah Palmateer, Teaching Specialists
Merrill Salat Hugo, Ulysses Arnold Patchett, Lawrence Washington, Instructors

After receiving the degree of Bachelor of Arts in Engineering, or an acceptable equivalent, a student is eligible for registration in the Department of Mechanical Engineering. Upon approval of the Department, School, and University Committee on Graduate Study, he will be accepted as a candidate for the Engineer's degree, and, upon fulfilling the department requirements and completing ninety units (two years) of approved work, including an acceptable thesis, will be recommended to the Committee on Graduate Study to receive the degree of Engineer.

In order to receive the recommendation of the Department for the degree of Engineer, the student's curriculum must have included the following courses: Mechanical Engineering 12, 2 units; 113, 6 units; 114, 8 units; 123, 3 units; 133, 4 units; and for those students specializing in Aëronautics the curriculum should have included also Mechanical Engineering 117, 3 units; Civil Engineering 192, 3 units; 193, 5 units; and Mathematics 130, 3 units, and 131, 3 units. These should, as far as possible, be completed while the student is enrolled in the School of Engineering.

### EQUIPMENT

The mechanical laboratory is equipped with various prime movers, compressors, blowers, and a refrigerating unit. Two Sprague electric dynamometers, arranged for tests on automotive equipment, and various types of absorption and transmission dynamometers are available. Three types of

boilers are installed, one of which has a superheater, economizer, and forced draft. Auxiliary apparatus of various types is arranged for testing. The instrument room contains a good collection of engineering and scientific instruments.

The hydraulic machinery laboratory is equipped with representative hydraulic machinery and appliances, which provide facilities for a wide range of research and experimental work in this field.

The Daniel Guggenheim Aëronautic Laboratory is equipped with a wind tunnel having a throat diameter of 8 feet, and a maximum air velocity of 90 miles per hour. Instruments and apparatus consisting of a propeller dynamometer, capable of testing model propellers 5 feet in diameter; a hanging wire type balance, suitable for making tests upon airfoils and complete airplane and dirigible models; pitot tubes; speed meters; altimeters, and the like, are available for making routine tests and for experimental research investigations.

New equipment in the engineering shops provides for graduate instruction and research in the melting, heat treatment, forming, and cutting of metals. Included in this apparatus are cupola, pit, and 125-pound-per-hour electric arc furnaces; electric and gas core ovens; experimental test lathe and grinders to generate standard tool forms; two 300-ampere electric welders; nine oxy-acetylene outfits; 1,000-pound-per-hour forging furnace; 10- and 30-kilowatt electric heat-treating furnaces; hump furnace; dilatometer; and various types of pyrometric control.

The United States government has allocated to Stanford a very complete gage-checking laboratory, containing a contour projector, Pratt and Whitney measuring machine, super-micrometer, Johansson gage blocks, and miscellaneous equipment to the value of about $40,000. The laboratory is available for the study of gages and for calibration of instruments.

The services of the University mechanician shop are available through department appropriation, as are also the tools and apparatus of the late William Roberts Eckart, for the construction of special instruments and apparatus.

In the University Library may be found the leading technical periodicals and proceedings, and a well-chosen selection of the published books.

The income of the William Roberts Eckart Research Fund is available as an annual prize for the best thesis offered by a student in the department.

## UNDERGRADUATE COURSES

[Note.—Laboratory sections in experimental engineering will be assigned in groups. In so far as the laboratory schedule permits, students will be allowed, with due regard to priority of application, to arrange their own sections and laboratory periods. Enrollment, with the instructor concerned, on registration day or the first day of University instruction, is essential in order that the laboratory schedule may be prepared. Enrollment later than the first week will not be permitted under any circumstances.]

**1. Forge Practice.**—Two laboratory periods per week. Required of Mechanical Engineering students.

2 units, autumn, *winter, and *spring quarters (Harcourt) By arrangement

*Autumn, 41; winter, 50; spring, 28*

**2. Foundry Practice.**—Two laboratory periods per week. Required of Mechanical Engineering students.

2 units, autumn, *winter, and *spring quarters (Liggett)

Heats W 1–4; by arrangement

*Autumn, 22; winter, 22; spring, 23*

**3. Machine Shop Practice.**—Two laboratory periods per week. Required of Mechanical Engineering students. Prerequisites: Mechanical Engineering 1 or 2. Enrollment limited to number of machines available.

2 units, autumn, *winter, and *spring quarters (PALMATEER) By arrangement
*Autumn, 20; winter, 20; spring, 24*

**4. Heat Treatment Practice.**—Two laboratory periods per week. Study of apparatus used for heat treatment of metals.

2 units, autumn and *winter quarters (TAYLOR) By arrangement
*Autumn, 4; winter, 9*

**10. Descriptive Geometry.**—This course deals with the principles and methods used in determining the space relations of points, lines, planes, and curved surfaces and their combination in actual objects, without going into details of shop and field notes, machine design, and topographic and geologic mapping, to which subjects it serves as a preliminary. Open to students who have completed or are taking Engineering 2 and 3 or have had their equivalent. Required of students in Engineering. Enrollment limited to fifty students per quarter.

4 units, autumn, *winter, and *spring quarters (GREEN, GULLIKSON, HUGO)
Lec. TTh 11; Dft. MT or ThF 1:05–4:05
*Autumn, 53; winter, 38; spring, 26*

**11. Engineering Drawing.**—Practice in making free-hand sketches of actual machine parts and their dimensioning in practical form for use in the shop. About one-third of the time will be spent in making finished drawings and tracings from these sketches. Drafting conventions, the principles of orthographic projection, and of correct dimensioning will be taken up. The purpose of the course is not only to give training in the reading of machine drawings through the making of a number of dimensioned sketches but also to familiarize the student as much as possible with the elements of machines. Prerequisite: Mechanical Engineering 10. Required of students in Engineering. (Three 3-hour periods in the drafting room and one hour of lecture per week, any quarter.) Enrollment limited to fifty students per quarter.

4 units, autumn, *winter, and *spring quarters (GREEN, GULLIKSON)
*Autumn, 39; winter, 35; spring, 23* Lec T. 10; Dft. by arrangement

**12. Machine Drawing.**—Further practice in making working drawings and tracings from original dimensioned sketches. (Two 3-hour periods in the drafting room per week, any quarter.) Prerequisite: Mechanical Engineering 11 and the sketches from that course. Required of Mechanical Engineering students.

2 units, autumn, *winter, and *spring quarters (GREEN, GULLIKSON)
Dft. by arrangement
*Autumn, 6; winter, 7; spring, 7*

**101. Advanced Forge Laboratory.**—Special work for students who have completed Mechanical Engineering 1.

2 units, autumn, winter, and spring quarters (HARCOURT) By arrangement
*Autumn, 5; winter, 6; spring, 8*

**102. Advanced Foundry Laboratory.**—Special work for students who have completed Mechanical Engineering 2.

2 units, autumn quarter (LIGGETT) By arrangement
*Autumn, 2*

**103. Advanced Machine Shop.**—Special work for students who have completed Mechanical Engineering 3.

2 units, autumn and winter quarters (PALMATEER) By arrangement
*Autumn, 4; winter, 1*

**112. Advanced Engineering Drawing.**—Advanced work in mechanical graphics covering problems in descriptive geometry, drafting technique, and machine drawing. Prerequisites: Mechanical Engineering 10, 11, and 12.
2 to 4 units, autumn, winter, and spring quarters (GREEN) [Not given in 1930–31]

**113. Elementary Machine Design.**

*a*) Function of machines; motion, force, and work in machines; analysis of mechanism; velocity, acceleration, and effort diagrams; parallel motions; cams; ratchets; toothed wheels. The aim is not merely to present a course in pure mechanism, or kinematics, but also—by the introduction of the consideration of force, work, and energy, as well as motion—to show the purposes for which the mechanisms are used and the manner in which they function.
3 units, winter quarter (MARX) Lec. MWF 10
1 unit, spring quarter (MARX) Lec. M 8
*Winter, 28; spring, 23*

*b*) Drafting course applying the principles treated in *a*. (Three hours a week drafting, winter and spring quarters.) Prerequisites: Mechanical Engineering 10, 11, and Engineering 2, 3. Courses *a* and *b* must be taken together and are required of students in Mechanical Engineering.
1 unit, winter and spring quarters (GREEN) Dft. W 1:05–4:05
*Winter, 28; spring, 23*

**114. Machine Design.**—Study of machine elements, such as bolts and screws; riveted joints, welded joints, and pressure vessels; keys, fits and fitting; axles, shafts, and spindles; journals, bearings, friction, and lubrication; ball and roller bearings; sliding surfaces; couplings and clutches; gear, belt, rope, and chain transmission systems; flywheels; brakes; springs; frames and supports; cylinders, etc.; leading to the design of complete simple machines. (Two hours a week recitations and lectures, six hours in the drafting-room, throughout the year.) Open to students who have completed Mechanical Engineering 113, Mining Engineering 105, and Civil Engineering 110; two quarters required of students in Mechanical Engineering.
4 units, autumn, winter, and spring quarters (MARX)
Lec. TTh 8; Dft. TTh 1:05–4:05
*Autumn, 21; winter, 14; spring, 7*

**115. Valve Gears.**—Steam and gas-engine valve-gear analysis and design. Bilgram, Zeuner, Reuleaux, harmonic, etc., diagrams. Plain, automatic, independent cut-off, Corliss, poppet, and locomotive valve gears.
2 units, spring quarter (MARX) Lec. WF 8
*Spring, 10*

**116. Dynamics of Machinery.**—Thorough drill in engineering applications of d'Alembert's principle. Practice in considering the simpler problems of mechanical engineering from the point of view of differential equations with emphasis on the physical interpretation of the results. A study of forces in machines and their analytical representation by Fourier's series. Vibration problems of one and of several degrees of freedom will be studied in detail. Graphical methods of determining lowest natural period of vibration of a complicated mechanical system. Prerequisite: Civil Engineering 100.
3 units, autumn and winter quarters (JACOBSEN) By arrangement
*Autumn, 18; winter, 13*

**117. Applications of Theory of Elasticity.**—A study of the results obtained by the theory of elasticity rather than a study of the theory itself. Tension and compression from the point of view of non-uniform stress distributions. Graphical methods of solving the flexual problem in general.

The beam on the elastic foundation with its many applications to problems of mechanical engineering. Curved beams solved by the theorem of least work. Torsion of bars of any cross section. Dynamic stresses with theories of fatigue of materials. Prerequisite: Civil Engineering 110.

3 units, spring quarter (JACOBSEN) By arrangement
*Spring, 27*

**122. Heat and Power Laboratory.**—An elementary course covering the methods and instruments used in the testing of steam and internal combustion engines, hydraulic motors, dynamometers, absorption brakes, fluid meters, and similar apparatus. (Seven experiments each requiring three hours in laboratory and about six hours on reports.) Prerequisite: Mechanical Engineering 132 completed or taken concurrently.

2 units, autumn and *winter quarters (PATCHETT, WASHINGTON) By arrangement
*Autumn, 44; winter, 73*

**123. Heat and Power Laboratory.**—Continuation of Mechanical Engineering 122. Includes the testing of steam turbines, boilers, air compressors, fans, and internal combustion engines. (Seven experiments each requiring three hours in the laboratory and about ten hours on reports.) Prerequisite: Mechanical Engineering 122.

3 units, autumn, *winter, and *spring quarters (PATCHETT, WASHINGTON) Lab. 1:05–4:05 by arrangement
*Autumn, 5; winter, 12; spring, 11*

**124. Heat and Power Laboratory.**—A continuation of Mechanical Engineering 123. Includes tests on hydraulic machines, heat engines, and power plant auxiliaries. (Seven experiments each requiring three hours in laboratory and about ten hours on reports.) Prerequisite: Mechanical Engineering 123. Will not be given unless at least four students register.

3 units, autumn quarter (PATCHETT, WASHINGTON) Lab. 1:05–4:05 by arrangement
*Autumn, 4*

**132. Elementary Engineering Thermodynamics.**—Introductory course in the application of the mechanical theory of heat to the generation of power. (Three lectures per week.) Prerequisites: Mathematics 23 and Physics 33 and 34. Required of students in Engineering.

3 units, autumn quarter (STEBBINS) Lec. MWF 10
*Autumn, 127*

**133. Heat Engines.**—Study of the principles, characteristics, and economic performance of the various thermal motors. (Three lectures per week.) Prerequisite: Mechanical Engineering 132. Required of students in Mechanical Engineering.

4 units, winter quarter (STEBBINS) Lec. MWF 10; problem work as arranged
*Winter, 65*

## COURSES PRIMARILY FOR GRADUATES

**200. Industrial Processes.**—Laboratory practice in selected shop processes, carried on with the co-operation of the Department of Mining Engineering. Forging, melting, and machining operations will be studied with reference to the chemical and physical properties of the metal and the financial requirements. Prerequisites: Mechanical Engineering 4 and Mining Engineering 105.

3 to 5 units, winter and spring quarters (TAYLOR) By arrangement
*Winter, 5; spring, 2*

**210. Shop Administration.**—A course of lectures on workshop organization and administration, factory accounting, wage systems, selection of

machinery, factory methods, etc. Prerequisites: Shopwork, Courses 1 to 3 inclusive.

4 units, winter quarter (Domonoske) By arrangement
*Winter, 15*

**211. Gages and Gaging.**—Principles underlying design and use of gages in manufacture. (Two lectures and three hours laboratory per week.) Prerequisites: senior standing in Engineering, and Mechanical Engineering 3.

3 units, autumn and spring quarters (Hugo) By arrangement
*Autumn, 7; spring, 4*

## AUTOMOTIVE ENGINEERING AND MACHINE DESIGN

**215. Dynamics of Machinery and Fluid Motion.**—A study of the potential and of force fields in general. Lagrange's equations with emphasis on engineering applications. Hamilton's variational principle. Euler's equations of rotation with applications to gyroscopic motions and engine governing. A study of fluid motion from a vector point of view. Laplace's continuity equation. Streamline motion with sources and sinks. Vortex motion. Bernoulli's and Euler's works with practical applications. Vibrations of fluids. The generalization of fluid motion as applied to heat flow and to electromagnetism. Prerequisites: Civil Engineering 117 and Mechanical Engineering 116.

3 units, autumn and winter quarters (Jacobsen) [Not given in 1930–31]

**216. Advanced Machine Design.**—Design of complete machines. Students may elect machine tools, cranes, steam or gas engines, or special problems. (One lecture and nine hours drafting per week.) Intended for students who have completed Mechanical Engineering 114, 132, and 133.

4 units, autumn quarter (Marx, Green, Jacobsen, Gullikson) [Not given in 1930–31]

**217. Theory of Elasticity.**—An elementary study of the theory of elasticity from the formal point of view. Theories of combined stresses and theories of failure of material. The two-dimensional problem which is susceptible of experimental solution by polarized light analysis is gone into. Other problems of interest to the individual student are considered.

3 units, spring quarter (Jacobsen) By arrangement
*Spring, 5*

**218. Automotive Construction.**—The application of the principles of engineering mechanics to the field of automotive transportation. First quarter largely devoted to automobile and aero engines. Prerequisites: Civil Engineering 99, 100, 110, and Mechanical Engineering 132, 133.

3 units, autumn and spring quarters (Domonoske) By arrangement
*Autumn, 12; spring, 7*

## HEAT AND POWER ENGINEERING

**230. Experimental Investigation of Mechanical Engineering Problems.**—Open to all students who have completed Mechanical Engineering 122, 123, Mining Engineering 108, and whose work has indicated their ability to carry on successfully advanced work of this nature. (A complete report of all work must be prepared for the laboratory files.)

3 to 6 units, spring quarter (Patchett, Washington) By arrangement
*Spring, 10*

**231. Heat Transmission.**—A study of the mathematical and empirical theory of conduction, convection, and radiation, and a consideration of the

laws of fluid flow as applied to engineering heat-transmission problems. The course includes a discussion of temperature measurement and apparatus for determining heat-transfer constants. Individual problems involving heat transfer will be assigned.

3 units, spring quarter (WASHINGTON) By arrangement
*Spring, 3*

**232. Internal Combustion Engines.**—Thermodynamics, structural and operating characteristics, and performance results of the different forms of internal combustion engines. Prerequisites: Mechanical Engineering 122 and 132. (To be given in alternate years.)

3 units, autumn quarter (CROSS) [Not given in 1930–31]

**233. Steam Turbines.**—Thermodynamics, structure, steam rates, operating characteristics, and performance results. Prerequisites: Mechanical Engineering 122 and 132. (To be given in alternate years beginning 1930–31.)

3 units, autumn quarter (CROSS) Lec. MWF 9; problems as arranged
*Autumn, 4*

**234. Applied Thermodynamics.**—Continuation of Courses 132, 133. Reversible and irreversible operations, flow of gases and vapors, design of turbine nozzles. Application of thermodynamic theory to advanced and special problems. Prerequisites: Mechanical Engineering 122, 132, and 133. (Three lectures per week.)

4 units, spring quarter (CROSS) Lec. MWF 10; problem work as arranged
*Spring, 6*

**235. Central Power Stations.**—Study of the principal problems presented by the design and operation of modern central power stations driven by heat prime movers. Prerequisites: Mechanical Engineering 122, 132, and 133. (Two lectures per week.)

3 to 5 units, autumn quarter (CROSS) Lec. TTh 9; problem work as arranged
*Autumn, 1*

**236. Pumping Machinery.**—Discussion of the principal problems arising in the design and operation of pumping machinery including displacement, centrifugal, rotary, and screw type propellers for general service, boiler feed, fire service, mine drainage, irrigation, municipal supply, oil line service, etc. (Two lectures per week.) Prerequisites: Mechanical Engineering 122, 132, and Civil Engineering 106.

3 to 5 units, winter quarter (CROSS) Lec. MWF 9; problem work as arranged
*Winter, 3*

**237. Hydraulic Machinery and Power Stations.**—Elements of hydraulic machinery with special reference to prime movers. Elements of the design of hydraulic power stations with special reference to modern hydroelectric practice; general control of water in tunnels and penstocks, surge chamber, control of surges and shocks, valves and regulating devices, penstocks and their installation, selection of units, characteristics of impulse and reaction types, speed regulation, installation tests, and special problems. Prerequisite: Civil Engineering 106. (Four lectures and three hours' office work per week.)

5 units, spring quarter (STEBBINS) Lec. MTWTh 9; problem work as arranged
*Spring, 34*

**238. Power Plant Economics.** A brief study of fundamental financial calculations, equipment costs, best type of prime mover, economic size of units, load curves. Prerequisite: Civil Engineering 130. (Two lectures per week with problems.)

3 to 5 units, spring quarter (CROSS) [Not given in 1930–31]

**239. Refrigeration.**—Thermodynamics of refrigeration; refrigerating systems and industrial applications. Prerequisites: Mechanical Engineering 122 and 132.

3 units, winter quarter (CROSS) Lec. TTh 9; problem work as arranged
*Winter, 4*

## AERONAUTICS

[Enrollment in the following courses, with exception of Course 240, is limited to graduate students. Fourth-year students having the necessary prerequisites and high scholastic records may enroll in Course 240.]

**240a. Introduction to Aëronautics.**—History, classification, and explanation of the principles of flight of all types of aircraft, elementary laws of aërodynamics, properties of airfoils, mechanics and basic aërodynamics of the complete airplane, elements of performance and static stability. Lectures with problems. Prerequisites: Civil Engineering 99, 100, and 106, Mathematics 23.

3 units, autumn quarter (REID) By arrangement
*Autumn, 10*

**240b. Aërodynamics of the Airplane.**—Theory of the lift and drag of airfoils and their combinations according to Lanchester, Prandtl, and Glauert. Prediction and analysis of airplane performance. Lectures with problems. Prerequisite: Mechanical Engineering 240*a*. Mechanical Engineering 243 must be taken concurrently.

3 units, winter quarter (REID) By arrangement
*Winter, 11*

**240c. Advanced Aërodynamics.**—Critical study of airfoil properties, including boundary-layer phenomena, slotted wings, etc. Stability, dynamic and rotary, and a résumé of the work of principal aërodynamic laboratories. Lectures with problems. Prerequisites: Mathematics 131, or Civil Engineering 102, and Mechanical Engineering 240*b*.

3 units, spring quarter (REID) By arrangement
*Spring, 7*

**241a. Airplane Structural Design.**—Basic methods of analysis and design of airplane structural elements, including computation of reactions, shears, bending moments, deflections of beams, influence lines and loads in truss members, and the design of tension members, struts, and beams of wood and metal. Lectures with problems. Prerequisites: Civil Engineering 110, 192, and 193.

3 units, autumn quarter (NILES) By arrangement
*Autumn, 7*

**241b. Airplane Structural Design.**—Advanced methods of analysis of airplane structural elements including computations of stresses due to torsion and combined torsion and bending, deflections of trusses and beams of non-uniform section, application of the method of least work to redundant structures, and computations of stresses in and design of members subjected to combined bending and compression. Also discussion of conventional types of construction as to relative merits and fields of application. Lectures with problems. Prerequisite: Mechanical Engineering 241*a*.

3 units, winter quarter (NILES) By arrangement
*Winter, 8*

**241c. Airplane Structural Design.**—Continuation of 241*b* and also discussion of critical loading conditions and Department of Commerce rules for

stress analysis. Lectures with problems. Prerequisite: Mechanical Engineering 241*b*.
3 units, spring quarter (NILES) By arrangement
*Spring, 7*

**242. Airplane Design.**—The layout and general design of an airplane for a specific duty, including complete performance estimate and stress analysis. Further discussion of types of construction with special attention to design of connecting fittings. Drafting. Prerequisites: Mechanical Engineering 240*a–c* and Mechanical Engineering 241*a–c*.
5 units, autumn, winter, and spring quarters (NILES, REID) By arrangement
*Autumn, 4; winter, 3; spring, 3*

**243. Theory and Practice of Propeller Design.**—Design of air propellers for specific duty, including propellers, windmills or turbines, and fans. Lectures with drafting. Prerequisite: Mechanical Engineering 240*a*.
3 units, winter quarter (LESLEY) By arrangement
*Winter, 11*

**244. Aircraft Instruments.**—Calibration and test of various instruments used in the navigation of aircraft; such as speed meters, altimeters, and barographs, yaw meters, rate of climb meters, etc., including study of principles of design and operation. Laboratory with occasional lectures.
3 units, autumn quarter (LESLEY) By arrangement
*Autumn, 8*

**245. Aërodynamic Laboratory.**—Experimental investigation of the aërodynamic properties of airfoils, airplane and airship models and propellers. Laboratory with occasional lectures.
3 units, spring quarter (LESLEY) By arrangement
*Spring, 8*

**246. Indeterminate Structures.**—Methods of stress analysis applicable to statically indeterminate structures, including rigid frames, trusses with rigid joints, and members subjected to combined bending and axial loads. Lectures with problems. Prerequisites: Civil Engineering 192 and 193.
3 to 4 units, autumn quarter (NILES) By arrangement
*Autumn, 5*

**247. Aëronautic Problems.**—Investigation, experimental or otherwise, of problems in aëronautics. The intent of this course is to offer an opportunity to students to do work in any field of aëronautics of special interest.
2 to 5 units, any quarter (LESLEY, NILES, REID) By arrangement
*Autumn, 2; winter, 14; spring, 1*

SPECIAL RESEARCH

**251. Thesis.**—Investigation of some engineering problem. Required of candidates for degree of Engineer.
2 to 15 units, autumn, *winter, *spring, and *summer quarters (ENTIRE STAFF) By arrangement
*Autumn, 4; winter, 6; spring, 6; summer, 2*

*Fees.*—Courses 1, 2, 3, 4, 101, 102, and 103, $10 each; Courses 113*b*, 234, 236, 50 cents each; Course 235, $1; Courses 122, 123, and 124, $5 each; Course 200, $10; Course 230, $1.50 per credit hour.

## MILITARY SCIENCE AND TACTICS

Donald Cameron Cubbison, Lieutenant Colonel, Field Artillery, Professor
Ittai Albert Luke, Captain, Ordnance Department, Associate Professor
Everett Charles Williams, Captain, Field Artillery, Associate Professor
Richard A. Gordan, Captain, Field Artillery, Associate Professor
Stewart Franklin Miller, Captain, Field Artillery, Associate Professor

Field Artillery and Ordnance units of the Reserve Officers' Training Corps are maintained for the purpose of fitting students to become Reserve Field Artillery or Ordnance Officers while they are taking their regular college courses. This enables them in case of a national emergency better to perform military duty in the service of their country and with the rank for which their capabilities and training as college graduates fit them.

The course is planned to cover a period of four academic years. Any student electing the course is expected to do so with the idea that he will complete the first two years' basic course and, if possible, elect and complete the last two years' advanced course; and that upon its satisfactory completion he will accept from the President of the United States a commission, as Second Lieutenant of Field Artillery or of Ordnance in the Officers' Reserve Corps.

The basic course is the same for both units. It consists of the first two years, completion of which fulfills the University requirement of six quarters of military or physical training. The lecture courses are classed in Group II of the Lower Division requirements. The obligation to complete the basic course may be canceled for good and sufficient reasons approved by the head of the department and the President of the University. All students enrolled in the R.O.T.C. are furnished uniforms and equipment without cost to themselves.

The advanced course is open to selected students who satisfactorily complete the basic course. A specially tailored uniform is furnished those taking the advanced course. Advanced course students are required to attend one summer instruction camp of six weeks, the government defraying all expenses, including food, clothing, and travel to and from camp. The camp is of six weeks' duration and is a period of interesting and instructive work with the physical and moral development of the students well provided for. In addition it is valuable for its broadening effect on the student, who is associating with men from other leading American universities. Men taking the advanced course receive in addition to the foregoing, commutation of subsistence at the rate of $9 per month for two years and $21 per month while at the required camp. Five units of credit will be given for satisfactory completion of the camp.

The United States Government places at the disposal of the University for instruction purposes the necessary number of horses and horse equipment; personal equipment; one complete 75-millimeter battery with fire control and reconnaissance instruments; motor equipment including caterpillar tractors, trucks, and motorcycles; and a well-equipped ordnance laboratory.

## FIELD ARTILLERY COURSE

### First-Year Basic (Freshman)

**2. Gunnery.**—(Two hours per week.) Simple definitions; the elements of the trajectory and their calculation; determination of firing data both with and without instruments; use of firing data by cannoneers.
2 units, autumn, winter, and spring quarters (Miller)
*Autumn, 21; winter, 35; spring, 17*

**11. Practical Work.**—(Three hours per week.) Individual instruction in equitation to include saddling, bridling, adjustments, acquiring a firm seat at all gaits; use of the aids. Fundamentals of Military Science.
1 unit, autumn quarter
*Autumn, 160*

**12. Practical Work.**—(Three hours per week.) Equitation continued. Individual instruction in the duties of the cannoneers in the service of the 75-millimeter gun. Gunners' examination. Battery instruction in dismounted drill.
1 unit, winter quarter
*Winter, 142*

**13. Practical Work.**—(Three hours per week.) Equitation continued. Individual instruction in fire control instruments including range finder, battery commander's telescope, aiming circle and field glasses. Duties of cannoneers in occupation of position and simulated firing.
1 unit, spring quarter
*Spring, 118*

### Second-Year Basic (Sophomore)

**5. Care of Animals.**—(Two hours per week.) Lecture course covering the care and conditioning of the horse, including care and management in the field; forage and animal nutrition; types of artillery horses, breeds, and blood lines; shoeing, grooming, stable management and exercise; hippology, anatomy, physiology, points, confirmation and age; wounds, simple diseases and their treatment; veterinary medicines; entraining and detraining; care en route.
2 units, spring quarter (Gordan)
*Spring, 67*

**21. Practical Work.**—(Three hours per week.) Equitation continued. Individual instruction in map making, including construction of pace scales; simple traversing; intersection; resection; contouring.
1 unit, autumn quarter
*Autumn, 89*

**22. Practical Work.**—(Three hours per week.) Harnessing, pair driving, and driving and draft. Battery instruction in dismounted drill.
1 unit, winter quarter
*Winter, 81*

**23. Practical Work.**—(Three hours per week.) Review instruments and gun drill. Battery mounted and tactical exercises.
1 unit, spring quarter
*Spring, 75*

### First-Year Advanced (Junior)

**101. Advanced Gunnery.**—(Three hours per week.) All elements of the basic principles of rapid preparation and conduct of fire. Elementary ballistics; the trajectory and its elements; the mission of field artillery; prepa

ration of firing data by parallel and compass methods; dispersion and the law of errors and its practical application to artillery; the firing commands; types of fire as delivered by artillery; method of adjusting on all types of targets, axial observation. Blackboard firing. Prerequisites: Military Science 2.

3 units, autumn, winter, and spring quarters (Williams)
*Autumn, 25; winter, 10; spring, 17*

**102. Advanced Gunnery.**—(Three hours per week.) Lateral observation; use of the aiming circle, plane table, and compass in laying guns by deliberate and more accurate methods; the firing tables; the meteorological message; weather corrections; normal, emergency, and rolling barrages; successive concentrations; aërial observation; flash, sound, and high burst ranging; visibility and dead space. Prerequisite: Military Science 101.

3 units, autumn, winter, and spring quarters (Williams)
*Autumn, 7; winter, 16; spring, 6*

**103. Tactical Employment of Artillery Details.**—(Three hours per week.) Artillery organization. Battery and battalion details and their use in reconnaissance, selection, and occupation of position. The infantry-artillery team. The artillery combat order. Map problems to include the battalion.

3 units, autumn and winter quarters (Miller)
*Autumn, 21; winter, 33*

**131. Practical Work.**—(Three hours per week.) Individual instruction in advanced equitation. The training of remounts; riding with bit and bridoon; jumping. Pistol practice.

1 unit, autumn quarter
*Autumn, 54*

**132. Practical Work.**—(Three hours per week.) Practical computation of firing data and the functions of the battery detail. Battery instruction in dismounted drill.

1 unit, winter quarter
*Winter, 55*

**133. Practical Work.**—(Three hours per week.) Individual instruction in conduct of fire, including practical application on the smoke bomb range of the principles taught in Courses 101 and 102. Battery instruction as officers and noncommissioned officers at mounted drills and at tactical exercises.

1 unit, spring quarter
*Spring, 56*

### Second-Year Advanced (Senior)

**100. Polo.**—(Three hours per week.) Optional. Open to all students who have completed Course 11.

1 unit, autumn, winter, and spring quarters (Gordan)
*Autumn, 50; winter, 51; spring, 36*

**104. Tactical Employment of Field Artillery.**—(Three hours per week.) Fundamentals of the organization and tactics of the army and its various arms and elements; field artillery organization, tactics, operations, employment, information, ammunition, supply, with special emphasis on artillery-infantry team work; functions of various calibers of field artillery and principles involving the type used; divisional, corps, and army artillery and functions of each; staff organization, functions, and duties; field orders, logistics; map problems.

3 units, winter and spring quarters (Williams)
*Winter, 24; spring, 22*

**105. Military History and Policy of the United States.**—(Three hours per week.) A critical study of our military policy, and a military survey of the most important campaigns and battles of the United States (including the World War). Military operations and strategy.
3 units, winter and spring quarters (CUBBISON)
*Winter, 24; spring, 47*

**106. Military Law and Administration.**—(Three hours per week.) History, authority, sources of military law; military law as applied to the United States Army in peace and in war; procedure in courts-martial; rules of land warfare; military administration to include duties of battery officers upon mobilization.
3 units, autumn and spring quarters (CUBBISON)
*Autumn, 25; spring, 35*

**141. Practical Work.**—(Three hours per week.) Command and leadership, acting as assistant instructors.
1 unit, autumn quarter
*Autumn, 36*

**142. Practical Work.**—(Three hours per week.) Command and leadership, acting as assistant instructors.
1 unit, winter quarter
*Winter, 45*

**143. Practical Work.**—(Three hours per week.) Command and leadership, acting as assistant instructors.
1 unit, spring quarter
*Spring, 47*

### SUMMER COURSES

**Summer Camp** for regularly enrolled students taking the Military Science course. Camp of six weeks' duration.
5 units, summer quarter
*Summer, 48*

### ORDNANCE R.O.T.C. CURRICULUM

[Open to Engineering and Chemistry students only.]

#### FIRST-YEAR BASIC

| Subject | Course | Units Autumn | Winter | Spring |
|---|---|---|---|---|
| Practical Work | M.S. 11, 12, 13 | 1 | 1 | 1 |
| Gunnery | M.S. 2 | | 2 | |

#### SECOND-YEAR BASIC

| | | | | |
|---|---|---|---|---|
| Practical Work | M.S. 21, 22, 23 | 1 | 1 | 1 |

#### FIRST-YEAR ADVANCED

| | | | | |
|---|---|---|---|---|
| *Materiel | M.S. 151, 154 | 2 | 2 | |
| *Ammunition and Explosives | M.S. 152 | | | 2 |

#### SECOND-YEAR ADVANCED

| | | | | |
|---|---|---|---|---|
| Ordnance Engineering | M.S. 155 | 2 | | |
| *Military Law and Administration | M.S. 156 | | 2 | |
| Organization of the Ordnance Department and Industrial Mobilization | M.S. 157 | | | 2 |

* These courses are listed in Group B of the School of Engineering Curriculum.

During the two years of the Advanced Ordnance course an average must be maintained of three hours per week (not units) of lecture or laboratory work elected from the following listed engineering and chemistry courses:

Chemistry 130, 171, 173
Civil Engineering 110, 117, 130
Electrical Engineering 104, 125
Mechanical Engineering 1, 2, 3, 122, 123, 133
Mining Engineering 105

### ADVANCED ORDNANCE COURSES

#### First-Year Advanced (Junior)

**151. Materiel.**—(Two hours per week.) A study of the design, manufacture, and use of small arms weapons and the various types of light and medium caliber artillery materiel.
2 units, autumn quarter (Luke)
*Autumn, 25*

**152. Ammunition and Explosives.**—(Two hours per week.) A study of the design, manufacture, and use of small arms and artillery ammunition including ballistic powders, high explosives, primers and primer mixtures, projectiles and fuses.
2 units, spring quarter (Luke)
*Spring, 22*

**154. Materiel.**—(Two hours per week.) Continuation of Course 151. This course includes a study of the design, manufacture, and use of railway and fixed major caliber artillery materiel.
2 units, winter quarter (Luke)
*Winter, 23*

#### Second-Year Advanced (Senior)

**155. Ordnance Engineering.**—(Two hours per week.) Lectures and problems dealing with the fundamental principles of the design of guns, carriages, recoil systems, ammunition, and fire control instruments. A brief study of interior and exterior ballistics is made.
2 units, autumn quarter (Luke)
*Autumn, 19*

**156. Military Law and Administration.**—(Two hours per week.) The purpose of the course is to give the student a general knowledge of the procedure of courts-martial and of military law as applied to the United States Army in peace and in war. A study will also be made of military administration to include the duties of battery officers.
2 units, autumn, *winter, and *spring quarters (Luke)
*Autumn, 1; winter, 24; spring, 1*

**157. Organization of Ordnance Department and Industrial Mobilization.**—(Two hours per week.) A brief outline of the organization of the Army showing the mission and functions of the Ordnance Department, and a detailed description of the organization of the Ordnance Department. Instructions in the regulations and methods pertaining to property accounting. General information on mass procurement, requirements, allocations, organization of the Ordnance District system, and responsibilities of Reserve Officers assigned to districts.
2 units, spring quarter (Luke)
*Spring, 31*

**158. Ordnance Problems.**—Lectures and laboratory work dealing with current Ordnance problems involving design and manufacture. Not a required course.
1 or more units, autumn, winter, and spring quarters (Luke)
*Autumn, 6; winter, 7; spring, 12*

[**Physical and Metallographic Constitution of Ordnance Steels.**—(Six hours per week.) This course is not required but may be elected by Ordnance students who have had Mining Engineering 105. A laboratory course designed to acquaint the student with the physical and metallographic properties of steels by means of heat treatment of specimens; determination of tensile and other properties; microscopic examination and some practice in photomicrography. (See Mining Engineering 107.)]
2 units, autumn quarter (Crook, Luke) By arrangement

### Graduate Courses

**241. Command and Leadership.**
1 to 4 units, autumn quarter (Williams)
*Autumn, 4*

**242. Command and Leadership.**
2 to 4 units, winter quarter (Williams)
*Winter, 6*

**243. Command and Leadership.**
1 to 4 units, spring quarter (Williams)
*Spring, 5*

### Summer Courses

**Summer Camp for Ordnance Students.**—The camp is of six weeks' duration.
5 units, summer quarter
*Summer, 22*

## MINING ENGINEERING

Theodore Jesse Hoover, Welton Joseph Crook, Frederick George Tickell, Professors
Theodore Saunders Dunn, Acting Associate Professor (Winter and Spring Quarters)
Orson Cutler Shepard, Howard Story Taylor, Instructors

Students having the profession of Mining, Metallurgical, Petroleum, or Ceramic Engineering in view will pursue the curriculum leading to the degree of Bachelor of Arts in Engineering (see pp. 252–255), registering in the School of Engineering after completing the Lower Division requirements. Such students are advised to include as many as possible of the following courses as electives:

*For all students.*—Geology 101, 121; Economics 4; Mining Engineering 108.

*For mining engineering students.*—Civil Engineering 190, 191; Geology 102, 161, and 163; Mining Engineering 101, 102, and 106.

*For metallurgical engineering students.*—Civil Engineering 192, 193; Chemistry 130, 171, 173; Physics 25 or 101; Mining Engineering 102, 106, and either 101 or 103.

*For petroleum engineering students.*—Geology 102; Chemistry 121, 123, 128, 130, 171; Mining Engineering 103.

*For ceramic engineering students.*—Chemistry 130, 171, and 173; Physics 25 or 101; Civil Engineering 190 and 191; Mining Engineering 102 and 104.

Upon completion of the work for the degree of Bachelor of Arts in Engineering the student will be eligible for candidacy for the degree of Engineer and will then register in the Department of Mining Engineering. The curriculum for the degree of Engineer shall require a minimum of six quarters in residence, and shall consist of ninety units of approved university work and the presentation of a thesis which must have the approval of the Committee on Graduate Study of the University. Upon completion of this two-year graduate curriculum the candidate will be recommended by the faculty of the Department for the degree of Engineer.

Graduates with the degree of Bachelor of Arts or its substantial equivalent from other institutions may be admitted to candidacy for the degree of Engineer, and may be recommended for the degree of Engineer by the faculty of the Department when such candidates have completed a course of study which is substantially equivalent to the course provided for in the previous paragraphs.

## UNDERGRADUATE COURSES

**101. Principles of Mining.**—Lectures. Covers the entire subject of the mining of metals and non-metals except fuels, serves as an outline for the orderly development of professional studies and meets the needs of the general engineering student. Includes a study of properties, occurrence, prospecting, development, exploitation, and utilization. Prerequisite: Geology 1 or 1*a*.

3 units, autumn quarter (SHEPARD) MWF 8
*Autumn, 35*

**102. Principles of Metallurgy.**—Lectures. Elementary discussion of broad principles of ore dressing and metallurgical operations. Preparatory to more detailed treatment in later courses; crushing, classification, concentration, hydrometallurgy, pyrometallurgy, electrometallurgy. Prerequisites: Chemistry 12 or 4; Physics 21–24 or 33–36.

5 units, winter quarter (DEPARTMENT FACULTY) MTWThF 10
*Winter, 19*

**103. Principles of Petroleum Mining.**—Lectures. Covers the whole subject of petroleum exploitation, giving the student a comprehensive view of the industry, serves as an outline for the orderly development of professional studies, and meets the needs of the general engineering student. Properties, origin, accumulation, and occurrence of petroleum; valuation, development, and production of oil properties; storage, transportation, testing, refining, and utilization of petroleum and its products. Prerequisite: Geology 1 or 1*a*.

3 units, spring quarter (TICKELL) MWF 10
*Spring, 52*

**104. General Ceramics.**—Lectures. An introductory course to the field of ceramics and ceramic engineering. A brief summary of ceramic manufacturing processes and types of products is included, but the principal emphasis

of the course is on the chemistry and physics of ceramic materials. Prerequisite: Chemistry 12 or 4.
3 units, autumn quarter [Not given in 1930–31]

**105. Pyrometallurgy, Iron and Steel.**—Lectures. The principles, practice, and cost of producing iron and steel; theory and practice of heat treatment; introduction to metallography of steel; theory, use, and production of alloy steels; nonferrous metals and alloys in engineering construction. Prerequisite: Chemistry 12.
3 units, winter quarter (Crook) MWF 8
*Winter, 126*

**106. Assaying.**—Laboratory and lectures. Determination of gold and silver in ores and metallurgical products. Prerequisites: Chemistry 12 or 4, Geology 121.
5 units, spring quarter (Dunn) [Not given in 1930–31]

**107. Physical and Metallographic Constitution of Ordnance Steel.**—A laboratory course designed to acquaint the student with the physical and metallographic properties of steel by means of heat treatment of specimens; determination of tensile and other properties; microscopic examination and some practice in photomicrography. Open to Ordnance R.O.T.C. students only. Prerequisite: Mining Engineering 105.
2 units, autumn quarter (Crook, Luke) [Not given in 1930–31]

**108. Testing of Fuels and Lubricants.**—Laboratory and lectures. The standard tests made on coal, fuel oil, lubricants, kerosene, gasoline, and gas.
3 units, winter quarter (Tickell)
Lec. TTh 9; Lab. one afternoon a week by arrangement
*Winter, 28*

**109. Ceramic Testing.**—Methods of laboratory testing for the determination of the physical properties of clays, and finished products. Interpretation of tests. Prerequisite: Mining Engineering 104 (may be taken together).
2 units, winter quarter [Not given in 1930–31]

## GRADUATE COURSES

**200. Research and Thesis.**—Original investigation of some problem in one of the fields offered by the department, in preparation for the Engineer's thesis. Each candidate for the Engineer's degree is to take this course once during his graduate work, preferably during the last quarter of graduate registration. During the second or third quarter of graduate registration, the student should confer with the instructor under whom he proposes to work, in order to outline the scope of the investigation to be undertaken, to estimate and provide for the expenses involved, and to arrange for the completion of a large part of the actual research work prior to the last quarter of residence.
5 units, autumn, *winter, and *spring quarters (Departmental Faculty)
By arrangement
*Autumn, 1; winter, 1; spring, 3*

### Administration

**201. Mine Valuation.**—Lectures and problems. General considerations; sampling and measurement; widths and volumes; economic geology; analysis of cost; price of metals; smelter contracts; amortization and deprecia-

tion; reserve reports. Prerequisites: Mining Engineering 101 and either 102 or 103.
1 unit, autumn quarter (HOOVER) Th 10
*Autumn, 2*

**202. Mine Organization.**—Lectures. The mining company; forms of business; frauds; selling mines; shares; balance sheet; profits; valuation; taxes; law. Prerequisite: Mining Engineering 201.
1 unit, winter quarter (Hoover) Th 9
*Winter, 8*

**203. Mine Management.**—Lectures. Organization and discipline of staff; technical committees, consulting engineers, managing directors, general managers; business principles and scientific management; vocational and technical training; personal qualities and efficiency; organization of labor; reports; supplies and material; costs and accounts. Prerequisite: Mining Engineering 202.
1 unit, spring quarter (HOOVER) Th 9
*Spring, 7*

## MINING

**211. Prospecting and Development.**

*a) Prospecting.* Lectures, seminar, and problems. The prospector, geological aspects; placer prospecting, prospecting for deposits in place, methods, and costs, engineering features; boring methods; geophysical applications. Prerequisite: Mining Engineering 101.
3 units, autumn quarter (TICKELL) Seminar by arrangement, Lec. MW 11
*Autumn, 2*

*b) Development.* Seminar and problems. Development plans; methods and cost of shaft sinking, drifting, and raising; engineering records, development reports. Prerequisite: Mining Engineering 101.
2 units, autumn quarter (SHEPARD) By arrangement and F 11
*Autumn, 1*

**212. Mine Equipment.**—Lectures and problems. The mathematical theory underlying the design and operation of mine equipment. Compressed air, haulage, hoisting, pumping, ventilation. Prerequisites: Mining Engineering 101; Civil Engineering 106, 110; Electrical Engineering 102, 103; Mechanical Engineering 122 and 132.
4 units, winter quarter (DUNN) TTh 11; Th 1:05
*Winter, 4*

**213. Mine Plant.**—Seminar and problems. The economic selection of mine equipment and the lay-out of mine plants. The details of the course are arranged to suit the needs of the individual students. Prerequisite: Mining Engineering 212.
3 to 5 units, spring quarter (DUNN) TTh 8
*Spring, 2*

**214. Operations.**—Seminar and problems. The methods and costs of surface and underground mining. Prerequisite: Mining Engineering 211*b*.
5 units, spring quarter (DUNN) Lec. MWF 9
*Spring, 1*

**215. Advanced Work in Mining Engineering.**—Seminar and problems. Special work in Courses 211 to 214.
2 to 10 units, autumn, *winter, and *spring quarters (TICKELL, DUNN) By arrangement
*Autumn, 3; winter, 5; spring, 1*

**216. Mine Sampling and Surveying.**—Preliminary study and practice during the winter quarter, followed by a field course during the spring vacation. Prerequisites: Civil Engineering 20 and Mining Engineering 201.
4 units, winter quarter (DUNN) (winter quarter) W 1:05; (spring vacation) 90 hours
*Winter, 3*

## METALLURGY

**217a. Powders and Explosives.**
2 units, autumn quarter (LUKE) By arrangement
*Autumn, 3*

**217b. Explosives Laboratory.**
2 units, autumn quarter (LUKE) By arrangement
*Autumn, 3*

**221. Ore Preparation.**—Lectures, seminar, and laboratory. Theoretical and laboratory studies of the physical properties of inorganic substances as a basis for evaluating the factors that influence the selection of equipment for crushing, grinding, sizing, classification, thickening, and filtration. Prerequisites: Mining Engineering 102 and Geology 121.
5 units, winter quarter (SHEPARD) [Not given in 1930–31]

**222. Concentration Processes.**—Lectures, seminar, and laboratory. The principles, practice, and cost of the concentration of metalliferous minerals from ores. Prerequisite: Mining Engineering 221.
4 units, spring quarter (SHEPARD) TTh 10; Lab. by arrangement
*Spring, 1*

**223. Engineering Applications of Photography.**—Demonstrations and laboratory. The technique of the various photographic processes useful to the engineer; copying, photography of apparatus, photomicrography by reflected and transmitted light. Open to limited number of students, by application.
2 units, autumn quarter (TICKELL, CROOK) By arrangement
*Autumn, 6*

**224. Hydrometallurgy, Gold and Silver.**—Lectures and laboratory. The principles, practice, and cost of treating ores by amalgamation, cyanidation, chlorination, and lixiviation processes. Prerequisite: Mining Engineering 221.
4 units, autumn quarter (SHEPARD) TTh 11; Lab. by arrangement
*Autumn, 1*

**225. Hydrometallurgy, Copper, Lead, and Zinc.**—Lectures. The principles, practice, and cost of recovering copper, lead, and zinc from ores by hydrometallurgical processes. Prerequisite: Mining Engineering 221.
3 units, winter quarter (SHEPARD) [Not given in 1930–31]

**226. Hydrometallurgy.**—Laboratory study of hydrometallurgical problems. To accompany Course 225.
2 to 5 units, winter quarter (SHEPARD) [Not given in 1930–31]

**227. Electrometallurgy.**—Lectures and seminar. Review of electrochemistry as applied to electrodeposition of metals; principles and practice of electrolytic refining. The principles, practice, and cost of electric furnace work. Prerequisite: Mining Engineering 225.
3 units, spring quarter (SHEPARD) MWF 10
*Spring, 7*

**228. Pyrometallurgy, Copper, Lead, and Zinc.**—Lectures. The principles, practice, and cost of recovering copper, lead, and zinc from ores by

pyrometallurgical methods; details of smelter operations; the physical chemistry of metallurgical operations. Prerequisite: Mining Engineering 102.
3 units, autumn quarter (CROOK) MWF 8
*Autumn, 1*

**230. Metallurgical Calculations.**—Seminar and lectures. Solution of problems involving physical chemistry as applied to pyrometallurgy and hydrometallurgy; calculation of efficiency of processes and furnace operations. Blast furnace charge calculations, etc. Prerequisite: Mining Engineering 102.
3 units, autumn quarter (SHEPARD) T 8
*Autumn, 9*

**231. Metallography.**—Laboratory and lectures. Study of the properties and microstructure of metals and alloys; technique of metallographic investigation and microphotography. Prerequisites: Mining Engineering 102 and 105.
4 units, winter quarter (CROOK) By arrangement
*Winter, 5*

**232. Pyrometry.**—Laboratory and lectures. Determination of high temperatures and calibration of pyrometrical instruments. Prerequisites: Mining Engineering 102 and 105.
3 units, winter quarter (CROOK, TAYLOR) By arrangement
*Winter, 5*

**233. Heat Treatment.**—Laboratory and lectures. Practice in the heat treatment of plain and alloy steels and nonferrous alloys under controlled conditions. Testing and examination of products. Prerequisites: Mining Engineering 231 and 232.
4 units, spring quarter (CROOK) By arrangement
*Spring, 5*

**234. Metallurgical Analysis: Ores.**—Laboratory. Rapid methods for quantitative determination of constituents of nonferrous ores and metallurgical by-products. Prerequisite: Mining Engineering 102.
3 or 4 units, autumn quarter (SHEPARD) [Not given in 1930–31]

**235. Metallurgical Analysis: Metals and Alloys.**—Laboratory. Rapid methods for quantitative determination of constituents of metals and alloys, ferrous metallurgical products, and raw materials. Prerequisites: Mining Engineering 105 and 234.
3 or 4 units, autumn quarter (CROOK, TAYLOR) By arrangement
*Autumn, 6*

**236. Industrial Processes.**—(Same as Mechanical Engineering 200.)
3 to 5 units, winter and spring quarters (TAYLOR) By arrangement
*Winter, 5; spring, 2*

**237. Electric Steel Furnace.**
3 units, spring quarter (CROOK)
*Spring, 1*

**239. Advanced Work in Metallurgy.**—Special work in Courses 221 to 238, inclusive. Subject and prerequisites by arrangement.
2 to 15 units, autumn and *spring quarters (CROOK, SHEPARD, TAYLOR) By arrangement)
*Autumn, 1; spring, 6*

## PETROLEUM

**241. Petroleum Engineering.**—Lectures and problems. A course in the application of engineering principles to the solution of underground prob-

lems; construction of graphic logs and sections; correlation of strata, study of water problems. Prerequisite: Mining Engineering 103.
4 units, autumn quarter (TICKELL) MWF 9
*Autumn, 9*

**242. Oil-Well Water Analysis.**—Laboratory. Rapid methods for the volumetric analysis of oil-well waters. Prerequisite: Mining Engineering 241.
2 units, autumn quarter (TICKELL) [Not given in 1930–31]

**243. Oil Field Development.**—Lectures. Dealing with the equipment and methods used in drilling oil wells. Prerequisite: Mining Engineering 103.
2 units, autumn quarter (TICKELL) TTh 9
*Autumn, 2*

**244. Production of Oil.**—Lectures. The production of oil, control of wells, pumping methods, operations, theory and operation of gas-lift, dehydration. Prerequisite: Mining Engineering 103.
2 units, winter quarter (TICKELL) TTh 10
*Winter, 2*

**245. Storage and Transportation of Petroleum.**—Lectures and problems. Methods of storage and transportation; methods of gauging, design of tanks and pipelines, prevention of storage losses, fire hazards, gas measurement. Prerequisites: Mining Engineering 103, Civil Engineering 106.
3 units, winter quarter (TICKELL) TTh 8
*Winter, 6*

**246. Petroleum Refining and Utilization.**—Lectures and problems. Refined products and their use for fuels, light generation, and lubrication; the design of heat exchangers; the economics of petroleum. Prerequisite: Mining Engineering 103.
3 units, spring quarter (TICKELL) TTh 10
*Spring, 5*

**247. Oil Land Valuation.**—Lectures and problems. The methods used in appraising oil lands; estimation of future production, operating costs, depreciation of material, salvage, value of future profits, tax returns. Prerequisites: Mining Engineering 103, Mathematics 23.
2 units, spring quarter (TICKELL) Lec. T 9
*Spring, 6*

**248. Petroleum Refinery.**—Laboratory. The analytical distillation of crude petroleum and the examination of its refined products; tests on heat exchangers. Prerequisite: Mining Engineering 108.
2 units, spring quarter (TICKELL) [Not given in 1930-31]

**249. Oil Field Sediments.**—Laboratory. Mechanical analysis of sediments as to grain size, porosity, mineral content, the microscopic identification of detrital minerals, oil content by extraction and distillation, etc. Prerequisites: Mining Engineering 103, Geology 121.
2 units, autumn quarter (TICKELL) By arrangement
*Autumn, 5*

**250. Advanced Work in Petroleum Engineering.**—Laboratory. Special work in Courses 241 to 249.
2 to 5 units, autumn and *winter quarters (TICKELL) By arrangement
*Autumn, 1; winter, 2*

## CERAMICS

**261. Clay Analysis.**—Quantitative analysis of the constituents of clays. Prerequisite: Mining Engineering 234.
3 units, autumn quarter (SHEPARD) [Not given in 1930–31]

**262. Refractories.**—Lectures, seminar, and laboratory. The manufacture, uses, and testing of refractories. This course is primarily for ceramic engineering students. Prerequisites: Mining Engineering 102, 109, and 232.
5 units, spring quarter (SHEPARD) [Not given in 1930–31]

**263. Testing of Refractories.**—Laboratory. The testing and selection of refractory materials. A short course, especially adapted to the needs of metallurgical students. Prerequisites: Mining Engineering 102 and 232.
2 units, spring quarter (SHEPARD) [Not given in 1930–31]

**264. Ceramic Glazes.**—Lectures, seminar, and laboratory. The theory, preparation, and application of ceramic glazes and enamels. Prerequisites: Mining Engineering 109, 221, and 232.
5 units, autumn quarter (————) [Not given in 1930–31]

**269. Special Problems in Ceramics.**—Seminar and laboratory. Special work on economic, technical, or scientific problems in ceramics, adapted to meet the needs of individual students. Prerequisites by arrangement.
5 to 15 units, autumn, *winter, and *spring quarters (————)
[Not given in 1930–31]

# FOOD RESEARCH INSTITUTE

Carl Lucas Alsberg, †Joseph Stancliffe Davis, Alonzo Englebert Taylor, Directors
Merrill Kelley Bennett, Holbrook Working, Louis B. Zapoleon, Economists
§Katharine Snodgrass, George Minch Weber, Research Associates
Robert Deblois Calkins, Jr., Elizabeth Perry Griffing, Junior Research Associates
Adelaide M. Hobe, Junior Statistical Associate

The Food Research Institute, organized under a grant from the Carnegie Corporation of New York for study of the production, distribution, and consumption of food, will be in active operation during all four quarters. It is virtually a research department, equipped with its special library, and the directors and staff are engaged primarily in research rather than in teaching.

The principal lines of work now under way are as follows: (1) Economic and statistical analyses of the world wheat situation, present and past, and of phases and factors in that situation; (2) Economic and statistical studies of the various fats and oils of vegetable and animal origin; (3) Analyses of the agricultural situation and agricultural policy in the United States; (4) Analyses of the factors affecting and the relationships between prices of various foodstuffs; and (5) Studies in the chemistry of the cereals, the starches, and the fats and oils. Published studies in these fields appear in the Institute's *Wheat Studies, Fats and Oils Studies,* and *Miscellaneous Publications,* and in articles appearing in various journals.

The Institute offers a few properly qualified graduate students the opportunity to undertake research, under the direction of members of its staff, in subjects lying within its general field. The facilities for such research are especially adequate in the specific lines of study upon which the Institute is currently engaged. In most cases students may obtain guidance while registered in appropriate research courses in other departments, as Economics or Chemistry; or they may register in the course named below.

Students whose training and experience have fitted them to work effectively on problems included in the Institute's program of research are sometimes granted Food Research Fellowships of $800 and upward. Specific inquiries may be addressed to the Executive Secretary, Dr. Taylor.

## RESEARCH COURSE

**201. Food Research Problems.**—Research upon subjects lying within the general field of food production, distribution, consumption, and prices.
Autumn, winter, spring, and summer quarters (Alsberg, Taylor, Working, Zapoleon, Bennett) By arrangement
*Autumn, 1; winter, 1; spring, 3; summer, 2*

† Absent on leave, 1930–31.
§ Deceased, September 25, 1930.

# HOOVER WAR LIBRARY

Ralph Haswell Lutz (Professor of History), *Chairman*, §Ephraim Douglass Adams (Professor of History), Joseph Stancliffe Davis (Director, Food Research Institute), Harold Henry Fisher (Curator, American Relief Administration Archives), *Vice-Chairman*, Herbert Clark Hoover (Founder), Eliot Grinnell Mears (Professor of Geography and International Trade), Edgar Eugene Robinson (Professor of History), Alonzo Englebert Taylor (Director, Food Research Institute), Graham Henry Stuart (Professor of Political Science), Nathan Van Patten (Director of University Libraries), Ray Lyman Wilbur (President of the University), †Murray Shipley Wildman (Professor of Economics), Directors

Nina Almond, Librarian

Philip Taggart McLean, Reference Librarian

Russell A. Buchanan, Assistant Reference Librarian

Dimitry M. Krassovsky, Bibliographer, Slavic Collections

Suda Lorena Bane, Assistant Curator, A.R.A. Archives

James Bunyan, Clara Fetter, Olga Hess Gankin, David Gerrard Rempel, Elena Varneck, Research Assistants

The Hoover War Library is a collection of materials for research in the causes, the conduct, and the results of the World War, including the period of reconstruction since the end of the war. The materials, from all nations whether belligerent or neutral, cover the fields of the social sciences for the period indicated. The collection includes government documents, files of newspapers and serials, manuscript memoirs and diaries of men and women important in world affairs during the war and post-war periods, publications of national and international bodies, both official and unofficial, books and pamphlets. The materials concerning the underlying causes of the war have been extended to the period commencing with the realignment of the world powers after 1871, the formation of the Triple Alliance and the Triple Entente, and the subsequent diplomatic crises which antedated the war. The Library's time limit for the post-war period has been fixed tentatively only. The collection is being made as adequate as possible on the transition from war conditions to post-war normal conditions.

The Hoover War Library has a separate physical existence in the University Library with its own stack, reading room, and staff. The reference staff are present to assist the users of the Library. For only a relatively small part of the Library is there a dictionary catalogue. The uncatalogued section is represented in the reading room by an author's check list arranged in various alphabets corresponding to the arrangement of materials on the shelves. For a complete record of the materials in the Library the student must consult the check list, the small but slowly expanding dictionary card catalogue, and the reference staff.

The use of the unrestricted materials is open to graduate students and faculty of Stanford University, to teachers and graduate students from other universities, and to other qualified investigators approved by the

§ Deceased, September 1, 1930.
† Deceased, December 24, 1930.

Directors. The Hoover War Library offers one graduate course of instruction and several departments offer courses using its materials. Members of the faculty of the University engaged in active academic work in the social sciences are also directing research work in the Hoover War Library in those fields in which they are concerned.

GRADUATE RESEARCH COURSE

**201. Problems of Research.**—Research problems in the general field of the World War and Reconstruction.

Autumn quarter (LUTZ, FISHER) By arrangement
*Autumn, 1*

# SCHOOL OF HYGIENE AND PHYSICAL EDUCATION FOR MEN

Thomas Andrew Storey, Professor of Hygiene and Physical Education, Director of Encina Gymnasium, Medical Adviser of Men, and General Director of School

Alfred Richard Masters, General Manager (Board of Athletic Control)

Walter Henry Brown, Professor of Hygiene and Physical Education, Director of Division of Informational Hygiene, Director of University Health Service

Harry Beal Torrey, Professor of Hygiene and Physical Education

Clark Wilson Hetherington, Royce Reed Long, Professors of Physical Education and Hygiene

George Sparr Luckett, Associate Professor of Hygiene and Physical Education

Charles Edward Shepard, Associate Professor of Hygiene and Physical Education and Director of Men Students' Health Service

John William Bunn (Basketball), Harry Wilfred Maloney (Minor Sports), Robert Lyman Templeton (Track and Field), Glenn Scobey Warner (Football), Harry Meiggs Wolter (Baseball), Directors

Ernst Brandsten (Water Sports), Howard Kinsey (Tennis), Advisory Directors

Will Boyd Ellington, Charles Myron Sprague, Claude E. Thornhill (Football), Associate Directors

Garry Eaton Bennett (Golf), James Bradshaw, Murray William Cuddeback, J. Charles Winterburn (Football), Assistant Directors

Ernest Paul Hunt, Supervisor of Physical Education

William Brownlee Owens, Faculty Representative on Pacific Coast Intercollegiate Athletic Conference

Curtis Byron Gorham, Ralph Howe, Edward Liston, Dell Theodore Lundquist, Herbert Lee Niebel, Granville Wood, Examining Physicians

Earl Frederick Roth, Assistant Medical Adviser of Men

Robert Allen Powers, Roentgenologist

Harry Everett Alderson, Consulting Dermatologist

James Arthur Cutting, Medical Consultant

Elwyn Baidon Bugge, Myron Reed Schall, Edward Anderson Smith, Instructors

Floyd E. Finch, Acting Instructor

Sherman Lockwood, §Frank Allison Ragan, Acting Instructors in Tennis

Donald Albert Robesky, Elwood Wilson, Assistants in Football

Norton Thornton, Teaching Assistant in Swimming

Jane Fayle, Secretary

§ Deceased, January 3, 1931.

## ORGANIZATION OF THE SCHOOL

The School of Hygiene and Physical Education for Men is composed of the following divisions: (1) Informational Hygiene; (2) Student Health Service; (3) University Health Service; (4) Physical Education. The activities within these divisions are carried on by directors and their staffs. The organization as a whole is under a general director who is the executive head of the School.

A statement of the objectives and a description of the programs of these divisions will be found in the *Information Bulletin* issued in March and in the *Sports Announcement* issued in September by the School of Hygiene and Physical Education for Men. The divisions of Men Students' Health Service and the University Health Service are described also on pages 151–153.

## DEGREES

The degree of Bachelor of Arts (A.B.) in Hygiene and Physical Education is not conferred by Stanford University.

The degree of Master of Arts (A.M.) and the degree of Doctor of Philosophy (Ph.D.) in Hygiene and Physical Education, or in Hygiene or Physical Education, are conferred on candidates who have satisfied the pertinent regulations of the University and of the School of Hygiene and Physical Education. The regulations of the University are published on pages 168–173.

In addition to the general regulations laid down by the University Committee on Graduate Study, the applicant for admission to candidacy for either of these degrees must have completed the following undergraduate courses in Stanford University, or their substantial equivalents: Zoölogy 1 and 2, or Biology 1 and 2, 10 units; Chemistry 1, 2, 3, and 4, 15 units, or Chemistry 10, 11, and 12, 12 units; Anatomy 120, 5 units; Physiology 101 and 102, 10 units; Psychology 51, 5 units; Hygiene and Physical Education 150, 151, 152, 153, and 154, 12 units, 6 units in Courses 1 to 49 and 101 to 149, Course 160, 3 units, and Course 180, 3 units.

Graduate students wishing to apply for admission to candidacy for an advanced degree will consult with the General Director of this School with reference to the thesis subject and course of graduate study.

## TEACHING CREDENTIALS

The requirements for a teaching minor, a teaching major, and a special credential in Physical Education that have been set up by the School of Hygiene and Physical Education for Men are described in the annual announcement of the School, issued by the University in March. Students who satisfactorily complete these requirements will be appropriately certified for recommendation by Stanford University through the Stanford School of Education to the California State Department of Education for teaching credentials in the schools of the state.

## COURSES OF INSTRUCTION

[The asterisk (*) indicates that the course is repeated for the quarter named.]

**1. Applied Physical Education and Hygiene.**—A basic course in physical exercise, games, and sports organized to help students form health-habit programs that fit their needs, and to give them opportunities to gain skills in the recreations and sports that interest them. On the basis of health

examinations and proficiency tests, students are classified as to their eligibility to more advanced sport and athletic courses that develop special powers and skills, impose greater mental and physical stresses, and involve more severe disciplines of character and personality and therefore call for a more careful regimen of hygiene. Required of all men students for six quarters or until completion of the Lower Division requirement. Three periods a week.

Autumn, *winter, *spring, and *summer quarters

(Long, Sprague, Bradshaw, Schall)

*Autumn, 169; winter, 182; spring, 124; summer, 35*

**2–4. Special Applied Physical Education and Hygiene.**—Miscellaneous health-habit programs adapted to fit the needs of the individual student for whom the usual class activities are not indicated or suitable. Admission only on recommendation of General Director or Director of the Men Students' Health Service. May be used to satisfy Lower Division requirement. Three periods a week.

Autumn, *winter, *spring, and *summer quarters

*2. Corrective Gymnastics.*—Admission on recommendation of the Director of the Men Students' Health Service.

(Shepard, Maloney, Schall)

*Autumn, 19; winter, 15; spring, 10; summer, 2*

*3. Modified Programs.*—Open to sick or injured students transferred from other courses in the department by their instructors to the Director of the Men Students' Health Service for counsel and help. Students who take intelligent care of their health problems under these special circumstances will be recorded as having satisfied the objectives of the Lower Division requirement in Physical Education and Hygiene.

(Storey, Shepard)

*Autumn, 19; winter, 14; spring, 12; summer, 10*

*4. Adjusted Programs.*—Adjustments of health-habit programs to meet the exceptional difficulties of the over-loaded student. Admission on approval of the General Director of the department. Hour by arrangement.

(Storey, Brown)

*Autumn, 49; winter, 52; spring, 41; summer, 3*

**10–24. Sports Courses, Elementary.** — Habit-forming and discipline courses open to students who demonstrate their satisfactory basic physical eligibility in Course 1. May be used to satisfy the Lower Division requirement. Three periods a week.

*11. Basketball* (Bunn)
*Spring, 13*

*12. Boxing* (Maloney, Schall)
*Autumn, 35; winter, 46; spring, 26*

*13. Fencing* (Maloney, Bugge)
*Autumn, 7; winter, 12; spring, 6*

*20. Swimming* (Thornton)
*Summer, 19*

*21. Tennis* (Bugge)
*Autumn, 47; winter, 49; spring, 40; summer, 21*

*23. Wrestling* (Long)
*Spring, 4*

*24. Diving* (Sprague, Smith)
*Autumn, 10; winter, 11; spring, 25*

Courses distributed in autumn, winter, spring, and summer quarters

**30–39. Athletic Training Courses, Freshman.**—Minor and major freshman athletic sport disciplines open by permission of the director of the sport involved to a limited number of qualified students who are eligible to participate in intercollegiate athletics under the rules and regulations adopted by the University. Five periods a week during the training season, then three periods a week until the end of the quarter. May be used to satisfy the Lower Division requirement.

*30. Freshman Baseball.*
Winter and *spring quarters (WOLTER, CUDDEBACK)
*Winter, 16; spring, 10*

*31. Freshman Basketball.*
Autumn and *winter quarters (BUNN)
*Autumn, 20; winter, 27*

*32. Freshman Football.*
Autumn quarter (WARNER, BRADSHAW)
*Autumn, 64*

*33. Freshman Swimming.*
Autumn and *winter quarters (BRANDSTEN and STAFF)
*Autumn, 20; winter, 22*

*34. Freshman Track and Field.*
Autumn ,*winter, and *spring quarters (TEMPLETON, ELLINGTON)
*Autumn, 25; winter, 51; spring, 31*

*35. Freshman Tennis.*
Autumn, *winter, and *spring quarters (BUGGE, LOCKWOOD)
*Autumn, 30; winter, 17; spring, 19*

*36. Freshman Golf.*
Autumn, *winter, and *spring quarters (BENNETT)
*Autumn, 16; winter, 10; spring, 14*

*37. Freshman Fencing.*
Autumn, *winter, and *spring quarters (MALONEY, BUGGE)
*Autumn, 1; winter, 3; spring, 3*

*39. Freshman Soccer.*
Autumn quarter (MALONEY and STAFF)
*Autumn, 23*

**70–76. Courses in the Technique of Teaching Activities. Special Methods Courses.**—These courses are concerned with the methods and techniques of Applied Physical Education and Hygiene for the improvement of training and the development of skills and for the preparation of teachers and coaches. Each course is planned and given by the director of the activity involved with the assistance of his staff. In general each combination of elementary and advanced courses presents: (a) The history of its special activity or activities; (b) its growth in the colleges of the United States; (c) its standards of sportsmanship; regulations; régime of conditioning and training; (d) hazards of immaturity, physical defects, age and weight, and of overemphasis; (e) elementary methods (Courses 70, 71, 72, and 73) and advanced methods (Courses 170, 171, 172, and 173); and (f) techniques for the preparation of teachers for service in secondary schools, junior colleges, and universities. Classroom presentations; graphic illustrations; field, court, and floor demonstrations. Admission only by permission of instructor in charge of course.

*70. Elementary Baseball Methods.*—Open to men who have had satisfactory baseball experience before entering college or an equivalent experience and who have qualified under the requirements of Applied Physical Education and Hygiene 1. Sections limited to 30. Two classroom and three field demonstration periods a week.
2 units, autumn quarter (WOLTER)
*Autumn, 6*

*71. Elementary Basketball Methods.*—Open to men who have had satisfactory basketball experience before entering college and who have qualified under the requirements of Applied Physical Education and Hygiene 1. Sec-

tions limited to 25 men each. Two classroom and three court demonstration periods a week.
(Bunn)
*Autumn, 2*

*72. Elementary Football Methods.*—Open to men who have had acceptable experience on secondary school, junior college, or freshman teams and who have satisfied the pertinent requirements of Applied Physical Education and Hygiene 1. Sections limited to 25 men each. Two classroom and three field demonstration periods a week.
2 units, winter quarter (Warner, Thornhill, Winterburn)
*Winter, 8*

*73. Elementary Track and Field Methods.*—Open to men who have had satisfactory previous experience in field and track training and competition, and to coaches who have had no experience in coaching field and track. This course will be elementary in all details, covering methods of training and conditioning for track and field competition. Each track and field event will be analyzed and the different methods of performance discussed. Classes will be limited to 25 men. Course 73 will be a prerequisite of 173.
2 units, autumn quarter (Templeton, Ellington)
*Autumn, 21*

*76. Technique of Teaching: Group Leadership in Gymnasium Activities.*—For students who expect to qualify as teachers of physical education. The course provides opportunity to prepare for, and practice in the leadership of the varied activities of a physical education program as carried out in the gymnasium. One recitation with adequate outside preparation and three practice periods a week. Will fulfill Lower Division Physical Education requirement.
1 unit, autumn and *winter quarters (Long and staff) [Not given in 1930–31]

## ADVANCED COURSES

**101. Applied Physical Education and Hygiene.**—Elective course for general physical exercise, games, and sports. Habit-forming and skill-developing course open to men students who have satisfied the Lower Division requirement in physical education and hygiene. Three periods a week.
1 unit, autumn, *winter, *spring, and *summer quarters
(Long, Sprague, Bradshaw, Schall)
*Autumn, 33; winter, 42; spring, 24; summer, 10*

**102–104. Special Applications of Physical Education and Hygiene.**—Miscellaneous programs adapted to fit the needs of individual students for whom the usual class activities are not indicated or suitable. Admission only on recommendation of General Director or Director of Men Students' Health Service.

*102. Corrective Gymnastics.*—Admission on recommendation of Director of the Men Students' Health Service.
1 unit, autumn, *winter, *spring, and *summer quarters
(Shepard, Maloney, Schall)
*Autumn, 8; winter, 2; spring, 1; summer, 1*

*103. Modified Programs.*—Open to sick or injured students transferred from other courses in the department by their instructors to the Director of the Men Students' Health Service for counsel and help. Students who take intelligent care of their health programs under these special circumstances will be recorded as having satisfied the objectives of the course. Daily, hour by arrangement.
1 unit, winter and *summer quarters (Storey, Shepard)
*Winter, 1; summer, 1*

*104. Adjusted Programs.*—Adjustments of health-habit programs to meet the exceptional difficulties of the overloaded student. Admission on approval of the General Director; hour by arrangement.
1 unit, summer quarter (STOREY, BROWN)
*Summer, 1*

**110–124. Sports Courses, Advanced.** — Habit-forming and discipline courses open to students whose qualifications satisfy the instructor in charge. Three periods a week.

*111. Basketball* (Bunn)
*Spring, 18*
*112. Boxing* (Maloney, Schall)
*Autumn, 27; winter, 18; spring, 27*
*113. Fencing* (Maloney, Bugge)
*Autumn, 4; winter, 10; spring, 11*
*114. Football* (Warner and Staff)
*Spring, 83*
*115. Golf* (Bennett and Staff)
*Autumn, 54; winter, 59; spring, 67*
*116. Gymnastics* (Long)
*Autumn, 15; winter, 17; spring, 12*
*120. Swimming* (Sprague, Thornton)
*Autumn, 22; winter, 10; spring, 53; summer, 40*
*121. Tennis* (Bugge)
*Autumn, 37; winter, 47; spring, 52; summer, 14*
*123. Wrestling* (Long)
*Autumn, 10; winter, 19; spring, 4*
*124. Diving* (Sprague, Smith)
*Autumn, 1; winter, 2; spring, 2*
1 unit, courses distributed in autumn, winter, spring, and summer quarters

**130–139. Athletic Training Courses, Advanced.**—Varsity athletic sport disciplines open by permission of the director of the sport involved to a limited number of qualified students who are eligible to participate in intercollegiate athletics under the rules and regulations adopted by the University. Five periods a week during the training season, then 3 periods a week until the end of the quarter.

*130. Varsity Baseball.*
1 unit, winter and *spring quarters (WOLTER, CUDDEBACK)
*Winter, 38; spring, 32*

*131. Varsity Basketball.*
1 unit, autumn and *winter quarters (BUNN)
*Autumn, 41; winter, 27*

*132. Varsity Football.*
1 unit, autumn quarter (WARNER and STAFF)
*Autumn, 100*

*133. Varsity Swimming.*
1 unit, autumn, *winter, and *spring quarters (BRANDSTEN and STAFF)
*Autumn, 37; winter, 33; spring, 50*

*134. Varsity Track and Field.*
1 unit, autumn, *winter, and *spring quarters (TEMPLETON and STAFF)
*Autumn, 87; winter, 90; spring, 73*

*135. Varsity Tennis.*
1 unit, autumn, *winter, and *spring quarters (BUGGE, LOCKWOOD)
*Autumn, 39; winter, 26; spring, 29*

*136. Varsity Golf.*
1 unit, autumn, *winter, and *spring quarters (BENNETT)
*Autumn, 20; winter, 18; spring, 17*

*137. Varsity Fencing.*
1 unit, autumn, *winter, and *spring quarters (MALONEY, BUGGE)
*Autumn, 10; winter, 8; spring, 9*

*138. Varsity Boxing.*
1 unit, winter quarter (MALONEY, SCHALL)
*Winter, 22*

*139. Varsity Soccer.*
1 unit, autumn and *spring quarters (MALONEY and STAFF)
*Autumn, 38; spring, 37*

**150–154. Informational Hygiene Courses.**—Discussion courses, open to Lower and Upper Division students.

*150. General Hygiene.*—General Constructive Hygiene. This course is concerned with the influences that produce and maintain normal physiology. It involves the determining and contributory causes of somatic and mental health; heredity, nutrition, excretion, exercise, work, play, and rest, favorable physical and social environment, economic resource, and pertinent relations of higher education and political organization. Open to all students. Sections limited to 25 students each.

3 units, autumn, *winter, *spring, and *summer quarters
*Autumn, 127; winter, 115; spring, 55; summer, 34*

*150S. General Hygiene.*—(Same as Course 150, except that class meets four times per week for eight weeks only).

3 units, summer quarter (LONG)
*Summer, 10*

*151. General Hygiene* (continued).—General Defensive Hygiene. This course is concerned with the influences that disturb normal physiology, the causes of disease, carriers of pathogens, contributory causes of poor health, the prevention of disease, and the defense of health. Prerequisite: Course 150. Sections limited to 25 students each.

3 units, autumn, *winter, and *spring quarters (BROWN, LONG, WOOD)
*Autumn, 10; winter, 45; spring, 62*

*151S. General Hygiene* (continued).—(Same as Course 151, except that class meets four times per week for eight weeks only).

3 units, summer quarter (BROWN)
*Summer, 10*

*152. Individual Hygiene.*—The applications of General Hygiene by the mature individual for the maintenance and defense of his personal health. Prerequisites: Courses 150 and 151. Sections limited to 25 students each.

2 units, autumn, *spring, and *summer quarters (BROWN, LONG)
*Autumn, 1; spring, 42; summer, 15*

*153. Group Hygiene.*—The applications of general hygiene by the family group, school group, occupational group, and other typical groups for the production, maintenance, and defense of the health of the members of the group. Involves the hygiene of parenthood, prenatal hygiene, the hygiene of infancy, childhood, and adolescence, school hygiene, occupational hygiene. Prerequisites: Courses 150 and 151. Sections limited to 25 students each.

2 units, autumn quarter (BROWN)
*Autumn, 21*

*154. Societal Hygiene.*—The applications of general hygiene through public opinion and by governing bodies for the production, maintenance, and defense of the public health; involves the idea of intergroup hygiene and includes rural community, municipal, county, state, and national hygiene. Prerequisites: Courses 150 and 151. Sections limited to 25 students each.

2 units, spring and *summer quarters (BROWN, LUCKETT)
*Spring, 18; summer, 3*

**160–169. Principles (Philosophy or Theory) of Physical Education Courses.**

*160. Principles of Physical Education.*—Should precede Course 185.

3 units, autumn quarter (HETHERINGTON, LONG)
*Autumn, 10*

*160S. Principles of Physical Education.*—(Same as Course 160, except that class meets four times per week for eight weeks only).

3 units, summer quarter (HETHERINGTON)
*Summer, 12*

**170–177. Courses in the Technique of Teaching. Special Methods Courses, Advanced.**—Upper Division courses open on permission of instructor to men who have had satisfactory Varsity or equivalent experience in the athletic sport involved. (For description of Special Methods Courses, see Lower Division Courses 70–76.)

*170. Advanced Baseball Methods.*—Instruction, tests, and ratings for recommendations for teaching positions. Prerequisite: Course 70. Fourth-year men preferred. Sections limited to 30. Two classroom and three field demonstration periods a week.
2 units, autumn quarter (WOLTER)
*Autumn, 1*

*171. Advanced Basketball Methods.*—Instruction, tests, and ratings for recommendations for teaching positions. Prerequisite: Course 71. Fourth-year men preferred. Sections limited to 25 men each. Three classroom and two court demonstration periods a week.
3 units, spring quarter (BUNN)
*Spring, 13*

*171S. Advanced Basketball Methods.*—(Same as Course 171, except that class meets five times per week for eight weeks only).
3 units, summer quarter (BUNN)
*Summer, 4*

*172. Advanced Football Methods.*—Instruction, tests, and ratings for recommendations for teaching positions. Prerequisite: Course 72. Fourth-year men preferred. Sections limited to 25 men each. Two classroom and three field demonstration periods a week.
2 units, spring quarter (WARNER and STAFF)
*Spring, 10*

*172S. Advanced Football Methods.*—(Same as Course 172, except that class meets five times per week for eight weeks only).
2 units, summer quarter (BRADSHAW)
*Summer, 10*

*173. Advanced Track and Field Methods.*—Open to men who desire to enter the field of coaching, who have covered Course 73 or its equivalent. This course is planned also for the benefit of high school, junior college, and university coaches who want advanced work. Special attention will be given to the method of training and the performing of all track and field events. Each event will be thoroughly demonstrated and analyzed. A study will be made of individual differences and the event for which the individual is best suited. Common faults will be described and the methods of elimination discussed. Classes will be limited to 25 men.
2 units, winter quarter (TEMPLETON, ELLINGTON, and STAFF)
*Winter, 12*

*176. Technique of Teaching: Group Leadership in Gymnasium Activities.*—Open to Upper Division students who are expecting to qualify as teachers of physical education and who have not had Course 76. The course provides opportunity to prepare for, and practice in the leadership of the varied activities of a physical education program as carried out in the gymnasium. One recitation period requiring adequate outside preparation and three practice periods per week.
2 units, autumn quarter (LONG and STAFF)
*Autumn, 1*

*177. Technique of Leadership Organization of Physical Education Activities.*
2 units, spring quarter (HETHERINGTON, LONG)
*Spring, 10*

**183. Technique of Athletic Management.**
1 unit, spring quarter (THORNHILL)
*Spring, 1*

**185. Administration of Physical Education.**—Should be preceded by Course 160.
3 units, winter quarter (HETHERINGTON, LONG)
*Winter, 5*

**185S. Administration of Physical Education.**—(Same as Course 185, except that class meets four times per week for eight weeks only).
3 units, summer quarter (LONG)
*Summer, 2*

**195. Special Assignments.**—Individual investigations of special subjects, problems of advanced degrees excluded. Open only to specially equipped selected students.
2 to 5 units (SCHOOL FACULTY) By arrangement
*Winter, 1; spring, 2*

**200. Graduate Courses.**—Problems, research, and seminar. In preparation.

**211. Physical Education Tests and Measurements.**
2 units, winter quarter (TORREY)
*Winter, 3*

**250. Seminar: Problems in Physical Education.**
2 units, winter quarter (HETHERINGTON, HUNT)
*Winter, 1*

# HYGIENE AND PHYSICAL EDUCATION FOR WOMEN

Clelia Duel Mosher, Professor of Personal Hygiene, Emeritus

Bertha Stuart Dyment, Professor of Hygiene and Physical Education for Women, Medical Adviser of Women and Director of the Department
Gertrude Hawley, Acting Director of Roble Gymnasium
Helen Masters Bunting, Associate Professor
Gretchen Kroncke Botts, Instructor
Greta Brandsten, Acting Instructor (Winter Quarter)
Wilma Eda Fenner, Ann Avery Smith, Acting Instructors (Summer Quarter)
Garry Bennett, Gertrude Blaine, Phyllis Mar Linscott, Sylvia Potter, Assistants in Instruction
Margaret Carrithers, Nurse, Student Health Service
Mildred Vishoot, Secretary

## ORGANIZATION

The Department of Hygiene and Physical Education for Women is composed of three divisions: (1) Division of Informational Hygiene, (2) Division of Physical Education, (3) A Student Health Service.

## OBJECTIVES

By means of courses of instruction the department aims to give accurate, practical, and usable information about health and the development of health habits; by programs of activity to satisfy the physical need for exercise, furnish an opportunity for self-expression, satisfy social needs, and give happiness and pleasure by means of a great variety of games and sports.

## STUDENT HEALTH SERVICE

A physical examination is required of all students prior to matriculation. If anything abnormal is found, the student is recalled later for a more detailed examination and discussion concerning her condition. She may then be called back at stated intervals for inspection and advice or further examination. Hours for consultation are scheduled every day in the office of the Medical Adviser of Women. Medical treatment is given in cases of emergency.

The University does not maintain an infirmary for the care of students who are ill. Therefore, a group of Stanford mothers, by individual gifts, have equipped and are maintaining six beds in the homes of two Stanford mothers who are trained nurses. One of the homes is reserved for the use of men students, and the other for women. Students may be sent to these rest homes, as they are called, upon recommendation of the medical advisers, at the nominal fee of $3 per day, $2 of which is paid from the Students' Hospital Fund and $1 by the student.

## DIVISION OF PHYSICAL EDUCATION

Physical Education is required of all Lower Division students. The type of activity is determined by the physical condition of the student; if normal in every respect, she is permitted to choose her own sport; if not fitted to indulge in strenuous activity, she is given advice as to the work best suited to her needs. If she has a poor posture or remedial defects, she is assigned to corrective gymnastics. If it is felt that she will be more benefited by rest, she is put on a rest schedule and her home hygiene carefully supervised.

*Credit.*—One unit of university credit per quarter is given for three hours per week of satisfactory work in the activities courses, whether elective or required.

*Costume.*—The gymnasium suit is especially designed for Stanford students and must be purchased at Roble Gymnasium. A limited number of suits may be rented at a nominal cost in special cases, upon consultation with the Director. Regulation gymnasium shoes are required for gymnastic and outdoor classes. Swimming suits are provided by the University. Each student provides her own caps and towel tickets. The complete outfit costs approximately fifteen dollars. The student provides her own equipment for tennis, equitation, and golf.

*Removal of Property.*—All suits, shoes, racquets, and other personal property not claimed within three days after the close of classes in this department each quarter will be collected and disposed of.

*Fees.*—A fee of $2 for the first day and $1 for each additional day is imposed for needless late registration in required classes. Special fees are charged, per quarter, as follows: Archery, $2; corrective gymnastics, $1; golf, $1.50 payable to the instructor, plus green fees payable to the Board of Athletic Control; equitation, $10; locker, 50 cents.

*Deposit.*—A deposit of $1 is required for hockey, 50 cents of which is refunded when property is returned.

## COURSES OF INSTRUCTION

**1a. Personal Hygiene.**—A study of some of the factors which make for normal development and maximum efficiency in everyday living.
3 units per quarter (DYMENT) MWF 8
*Autumn, 33; winter, 26; spring, 19*

**1b. Advanced Individual Hygiene and Emergencies.**—A continuation of Course 1*a*, including instruction in first aid and emergency measures. Prerequisite: Course 1*a*.
3 units, spring quarter (DYMENT)
*Spring, 22*

**1d. Introduction to Physical Education.**—A study of the history of the physical education movement and current problems in this field. Open to all students.
2 units, winter quarter (HAWLEY) By arrangement
*Winter, 1*

## PHYSICAL EDUCATION ACTIVITIES

[Each of the following courses given three times per week]

**1–2. Gymnastics.**

*1. Marching and Self-Testing Activities,* combined with a two-hour course in dancing, swimming, or sports. Posture class and games substituted for this course in winter quarter.
1 unit, winter quarter (BUNTING)
*Winter, 18*

*2. Remedial Gymnastics,* combined with any other course in Physical Education. Admission on recommendation of the Medical Adviser of Women. A course designed to give individual help to those who have poor posture or other remedial defects.
1 unit per quarter (HAWLEY, SMITH)
*Autumn, 5; winter, 31; spring, 16; summer, 6*

**10–19. Dancing.**

*10. Elementary Interpretative Dancing.*
*Autumn, 9; winter, 22*

*11. Intermediate Interpretative Dancing.*
*Winter, 8*

*12. Advanced Interpretative Dancing.*
*Autumn, 19; winter, 20*

*13. Dancing Composition.* Open only on consultation.

*15. Folk Dancing.*
*Winter, 23*

One quarter of either Course 10, 11, 12, or 15 required in Lower Division. Elective for juniors and seniors.
Courses 12 and 13 combined as Advanced Interpretative Dancing and Composition
1 unit per quarter (BOTTS)

**20–29. Swimming and Diving.**

*20. Elementary Swimming.*
*Autumn, 4; spring, 12; summer, 24*

*21. Intermediate Swimming.* Requirement, 75 feet, any stroke.
*Autumn, 16; spring, 46; summer, 18*

*22. Advanced Swimming.* Requirement, 75 feet, crawl or trudgeon stroke.
*Autumn, 19; winter, 14; spring, 18; summer, 11*

*23. Competitive Swimming.* Prerequisite: Course 22 or its equivalent.
*Spring, 30*

*25. Elementary Springboard Diving.* Requirement, straight dive from three-foot board.
*Summer, 10*

*26. Intermediate Springboard Diving.* Requirement, running swan dive, back dive, forward jackknife dive from three-foot board.

*27. Advanced Springboard Diving.* Requirement, in addition to that of Course 26, backward jackknife dive, and forward and backward somersaults from three-foot board.

One quarter of either swimming or diving required in Lower Division. Elective for juniors and seniors.
Courses 21 and 25 combined.
Courses 22, 26, 27 combined autumn and winter quarters.
Courses 25, 26, 27 combined summer quarter.
1 unit per quarter (BOTTS, FENNER)

**30–136. Sports**

*30. Elementary Archery*
*Summer, 8*
*31. Intermediate Archery*
*32. Advanced Archery*
*33. Freshman Basketball*
*Autumn, 25*
*34. Sophomore Basketball*
*Autumn, 39*
*133. Junior Basketball*
*Autumn, 10*
*134. Senior Basketball*
*Autumn, 10*
*35. Freshman Hockey*
*Winter, 28*
*36. Sophomore Hockey*
*Winter, 34*
*135. Junior Hockey*
*Winter, 29*
*136. Senior Hockey*
*Winter, 29*
*37. Elementary Tennis*
*Autumn 11; spring, 12*
*38. Intermediate Tennis*
*Autumn, 32; spring, 23*
*39. Advanced Tennis**
*Autumn, 3; spring, 26; winter, 10; summer, 6*
*40. Fencing* (Bugge)
*Autumn, 11; winter, 10; spring, 13*
*41. Golf* (Bennett, Potter)
*Autumn, 19; winter, 5; spring, 31; summer, 4*
*42. Equitation* (Blaine)
*Autumn, 16; winter, 7; spring 4; summer, 6*
*43. Baseball*
*Spring, 30*

One quarter of one sport required in Lower Division. Elective for juniors and seniors.

1 unit per quarter (Hawley, Bunting, Botts, Smith)
Courses 30, 31, 32 combined: *Autumn, 17; spring, 11.*
Courses 37 and 38 combined: *Summer, 16*

* In spring quarter Competitive Tennis substituted for this course.

# SCHOOL OF LAW

†Marion Rice Kirkwood, Joseph Walter Bingham, Arthur Martin Cathcart, Stanley Morrison, George Edward Osborne, William Brownlee Owens, Chester Garfield Vernier, Clarke Butler Whittier, Professors

Joseph Warren Madden (University of Pittsburgh), Acting Professor

Judson Adams Crane (University of Pittsburgh), Garrard Glenn (University of Virginia), Max Radin (University of California), Acting Professors (Summer Quarter)

James Emmet Brenner, Sigvald Nielson, Harry John Rathbun, Lowell Turrentine, Associate Professors

Oscar Kennedy Cushing, Henrie Granville Hill, Leonard Saxton Lyon, Lecturers

## ORGANIZATION

The School of Law was established, as a department of the University, in 1893. Its purpose is to provide a thorough legal education for students who are fitted by their maturity and their previous academic training to pursue professional study under university methods of instruction. The curriculum covers three academic years and constitutes an adequate preparation for the practice of law in any English-speaking jurisdiction. In all courses some special attention is paid to problems of local law in the Western States.

By taking advantage of the four-quarter system, with its opportunities for summer instruction, the Law curriculum may be completed in two and one-fourth calendar years.

## THE LIBRARY

The Law Library contains over 36,000 volumes, including complete sets of the English, Irish, Scotch, Australian, New Zealand, and Canadian reports, the reports of all Federal courts of the United States, and of the courts of the various states, the Australian States, and the Canadian Provinces, the National Reporter system, the standard collections of cases, the standard English and American legal encyclopedias, the principal American, English, and Canadian digests and citators, sets of the leading American, British, Canadian, and Continental legal periodicals, together with a good collection of textbooks. There is also a somewhat complete collection of compiled laws, session laws, and other statutory material, both Federal and State, as well as British, Canadian, and Australian.

The class of 1911, upon graduation, adopted a plan for the purchase, from time to time, of works on Legal History. This collection is known as the "Class of 1911 Memorial Collection on Legal History." The class of 1912 adopted a similar plan for the purchase of a memorial collection of celebrated trials.

Through the efforts of the Stanford Law Association a fund was established in 1923 in memory of Charles Andrews Huston, who was for many years Professor of Law and Dean of this School. The income from this fund is to be used for the purchase of books for the Law Library.

† Absent on leave, 1930–31.

The Delta Theta Phi fraternity makes an annual gift of money, for the purchase of books, to be selected by the Faculty.

Through the generosity of Justice McFarland, Justice Melvin, Justice W. A. Sloane, Justice Frank H. Kerrigan, and Justice John E. Richards, the Library has received, since 1907, a set of the records of the California Supreme Court, and through the generosity of Justice Sloss, Justice Warren Olney, Jr., Justice C. A. Shurtleff, Justice Frank H. Kerrigan, and Justice John E. Richards, a set of the records of the District Courts of Appeal.

The University Libraries are also available for use by students of the School of Law. A Law Library fee of $5 is charged each student registered in Law.

## ADMISSION TO THE SCHOOL OF LAW

Admission to the professional curriculum in Law in regular standing is granted only to students who have received the degree of Bachelor of Arts, or an equivalent degree, from this University or from some other institution of recognized collegiate standing.

In the discretion of the Faculty, admission may be granted to a very limited number of students who cannot meet the foregoing requirement, but who are eligible for admission to the University, who are twenty-five years of age, and whose previous experience is such as to justify the presumption of their ability to do the work successfully. Such students are termed "unclassified" and are not eligible for a degree.

It is advised that the matter of admission be settled in advance. For this purpose those seeking admission in regular standing should furnish a complete and official transcript of their college work, showing courses pursued, grades received, and degrees conferred. The necessary application blanks will be provided on request.

Second- and third-year students are admitted at the beginning of any quarter, but first-year students can be accepted only at the beginning of the summer or autumn quarters.

## THE DEGREE OF BACHELOR OF LAWS

Students who have received the degree of Bachelor of Arts, or its equivalent, from this University or from some other institution of recognized collegiate rank, and who have satisfactorily completed courses in Law aggregating 117 units, including therein all first-year professional courses, and who have devoted nine full quarters of time to the study of Law, and who have otherwise satisfied the requirements of the University and of the School of Law, will be granted the degree of Bachelor of Laws (LL.B.).

## THE DEGREE OF JURIS DOCTOR

To be admitted to candidacy for the degree of Juris Doctor a student must be eligible for admission to the School of Law in regular standing, must have completed the work for the first degree in Law at this University, or in some other university law school of recognized standing in which work for the first degree in Law covers a period of not less than six years of combined academic and law work, and must be approved for candidacy by action of the Law Faculty. For this purpose there must be furnished a complete and official transcript of the academic and professional work of the applicant, showing in detail courses pursued, grades received, and degrees con-

ferred. This transcript should be sent by the proper official directly to the Dean of the School of Law. Students who have met the foregoing requirements and who have completed with a high average and otherwise to the satisfaction of the Law Faculty thirty-two units of work in law courses not previously taken, including therein at least eight units to be selected from courses numbered 280 to 286, as set forth in this announcement, and who have in addition submitted an acceptable thesis on a legal problem approved by the Faculty, will be granted the degree of Juris Doctor (J.D.).

### NON-PROFESSIONAL COURSES

[Credit in non-professional courses may be counted toward the A.B. degree, but not toward the professional degree.]

**101. Business Law I.**—An elementary course in the law of contracts to teach the student who expects to become an engineer, doctor, banker, teacher, or business man, but not a lawyer, how and when a contract is made and the risks imposed by law as a consequence of the formation of the contractual relationship. The object of the course is to provide the student with necessary legal information to enable him to seek professional legal advice at the right time. The course acquaints the student with legal and business terms necessary to understand simple legal procedure. Open only to students having 110 units of credit. Text: Bays, *Cases on Commercial Law* (2d ed.), and Morgan, *Introduction to Law.*

3 units, autumn quarter (RATHBUN)
*Autumn, 162 (2 sections)*

**102. Business Law II.**—An elementary course in the law of agency and negotiable instruments for the use of students who do not expect to enter law as a profession. The object of this course is the same as that of Business Law I. Prerequisite: Business Law I. Bays, *Cases on Commercial Law* (2d ed.).

3 units, winter quarter (RATHBUN)
*Winter, 101 (2 sections)*

**103. Business Law III.**—An elementary course in the law of negotiable instruments, corporations, and partnerships. This course is a continuation of Business Law I and II and its object is the same. Prerequisites: Business Law I and II. Bays, *Cases on Commercial Law* (2d ed.).

3 units, spring quarter (RATHBUN)
*Spring, 50*

**200. Law Problems in Business.**—This course is given solely for students enrolled in the Graduate School of Business. Such students are advised to take Courses 101 to 103, inclusive, or their equivalent, while undergraduates. The course includes selected legal problems in credit and risk bearing, in credit and commercial instruments, in management, in trade practices, in financial operations, and in governmental regulation and taxation.

1 unit, winter and spring quarters (RATHBUN)
*Winter, 24; spring, 26*

### PROFESSIONAL COURSES

#### First-Year Courses

[In courses announced as running through more than one quarter a single final examination will be given at the end of the course and credit will be deferred until that time. Successful completion of all first-year courses is required for the law degree.]

**201. Introduction to Law.**—The primary purpose of this course is to present the historical background and development of law and legal institu-

tions necessary to a proper study of other substantive law courses. To this end consideration is given to an outline of the historical development of English and American courts and procedure, common law and equity. Special emphasis is placed on the formulary system of actions and the elements of common law pleading. A detailed study, by the case method, of the principal common law actions is made. Cook and Hinton, *Cases on Common Law Pleading,* syllabus and selected cases.

4 units, autumn quarter (NIELSON)
*Autumn, 99*

**202. Contracts I.**—Mutual assent, including offer and acceptance; contracts under seal; statute of frauds; consideration; beneficiaries; assignees; joint and several contracts; illegality; impossibility; discharge of contracts. The quasi-contractual rights, if any, which arise when contract rights are lacking, are studied. Williston, *Cases on Contracts* (2d ed.), Thurston, *Cases on Quasi-Contracts,* and selected cases.

3 units, autumn, winter, and spring quarters (WHITTIER)
9 units, summer quarter (CRANE)
*Autumn, 85; winter, 81; spring, 74; summer, 22*

**203. Torts.**—Principles of tort liability as developed in the action of trespass; justification and excuse; negligence as a basis of liability; common law and statutory duties of care; legal cause; contributory negligence; absolute liability; deceit; defamation; malicious prosecution and abuse of process; interference with social and business relations, unfair competition, combinations, strikes, boycotts. Case book to be announced. Selected cases.

3 units, autumn, winter, and spring quarters (CATHCART)
*Autumn, 95; winter, 93; spring, 85*

**204. Criminal Law.**—Nature and sources of criminal law; crime as an act; attempts; criminal intent; circumstances affecting illegality of act; specific offenses; crimes against the person, larceny and allied offenses, crimes against the dwelling house, conspiracy. Mikell, *Cases on Criminal Law* (2d ed.).

3 units, autumn and winter quarters (VERNIER)
*Autumn, 97; winter, 95*

**205. Personal Property.**—Possession: nature, importance, and legal effect. Possessory interests arising from: tenancy, bailment, lawful seizure. Rights of a finder. Possession without right. Certain methods of acquiring title to chattels; statutes of limitation; gifts *inter vivos;* accession; confusion, etc. Liens and pledges. Conversion. Warren, *Cases on Property* (abridged ed.).

4 units, spring and summer quarters (OSBORNE)
*Spring, 62; summer, 18*

**206. Real Property.**—Tenure; estates in land with reference to: quantity, absolute and qualified character, time of enjoyment, number and connection of owners, creation and transfer, uses, marital interests. Acquisition of title by adverse possession, prescription, accretion. Natural rights; profits, easements, licenses. Aigler, *Cases on Titles;* Bigelow, *Cases on Rights in Land* (with Introduction), and selected cases.

4 units, winter quarter; 2 units, spring quarter (MADDEN)
*Winter, 94; spring, 84*

## SECOND- AND THIRD-YEAR COURSES

**225. Contracts II.**—Express conditions; defenses arising from breach of implied conditions, prevention, incapacitation, repudiation; excuses for nonperformance of conditions; anticipatory breach. The quasi-contractual rights related to the above topics and some other matters in quasi-contracts are

studied. Williston, *Cases on Contracts* (2d ed.), Thurston, *Cases on Quasi-Contracts*, and selected cases.
4 units, autumn quarter (WHITTIER)
*Autumn, 43*

**226. Insurance.**—Marine, fire, and life insurance. Insurable interests in various kinds of policies; concealments; misrepresentations; warranties and other matters affecting the validity of the contract; amount of recovery; subrogation; waiver, estoppel, election; powers of agents; assignees and beneficiaries. Vance, *Cases on Insurance.*
3 units, summer quarter (GLENN)
*Summer, 9*

**227. Sales.**—Subject-matter of the contract; transfer of property and title; destruction of the goods and risk of loss; obligations of seller and buyer; rights of unpaid seller against the goods, remedies of the seller on the contract; remedies of the buyer on the contract. Woodward, *Cases on Sales* (2d ed.).
6 units, autumn quarter (VERNIER)
*Autumn, 57*

**228. Bills and Notes.**—Negotiability; form and inception, form of bill and of note, acceptance, delivery, consideration, negotiation, transfer, holder in due course; liability of parties, maker and acceptor, drawer and indorser, transferor; discharge; effect of the Negotiable Instruments Law. Britton, *Cases on Bills and Notes.*
3 units, winter and spring quarters (VERNIER)
*Winter, 56; spring, 57*

**229. Security.**—A study of the various security devices including mortgages, both real and personal, conditional sales of chattels, and trust receipts; liens and pledges of personal property, mechanics' liens, suretyship and guaranty. Case book to be announced.
4 units, winter and spring quarters (OSBORNE)
*Winter, 38; spring, 36*

**231. Bankruptcy.**—Who may be a bankrupt; who may be petitioning creditors; acts of bankruptcy; what property passes to the trustee; provable claims; duties and powers of the bankrupt and his trustee; protection, exemptions, and discharge. Williston, *Cases on Bankruptcy.*
3 units, summer quarter (OSBORNE)
*Summer, 10*

**232. Partnership.**—Nature of a partnership, its purposes, and members; creation of partnerships; nature of partner's interest; firm name and goodwill; mutual rights and duties of partners; actions between partners, at law and in equity; powers of partners; liability for acts of partners in contract and tort; general liability of partners; dissolution and notice; consequences of dissolution; dissolution agreements respecting debts; distribution of assets to creditors, and between partners; limited partnerships. Case book to be announced.
4 units, spring quarter (NIELSON)
*Spring, 8*

**233. Private Corporations.**—The nature of a corporation; promotion of corporations; corporate powers; corporate liability for torts and crimes; unauthorized corporate action, including doctrines of *de facto* corporations, and *ultra vires* acts; officers, stockholders, and creditors of corporations; reorganization of corporations. Warren, *Cases on Corporations* (2d ed.).
3 units, winter and spring quarters (NIELSON)
*Winter, 38; spring, 37*

**234. Admiralty.**—The principles of admiralty and maritime law, as applied in the United States; the scope and subject-matter of admiralty jurisdiction; law applicable to maritime workers; maritime liens; salvage; general average; limited liability; contracts of affreightment; charter parties; the Harter Act. Sayre, *Cases on Admiralty.*
4 units, winter quarter (MORRISON)
*Winter, 10*

**235. Agency.**—Nature of the relation; appointment; liability of principal for agent's torts and contracts; liability of agent to third parties; principal's duties to agent, including workmen's compensation legislation; delegation; undisclosed principal; termination; ratification. Mechem, *Cases on Agency* (2d ed.), and selected cases.
3 units, autumn and winter quarters (TURRENTINE)
*Autumn, 26; winter, 25*

**240. Conveyancing.**—Execution of deeds; description of property conveyed; creation of incorporeal interests, rents; covenants as to use and as to title; estoppel by deed; priorities. Aigler, *Cases on Title to Land;* Bigelow, *Cases on Rights in Land.*
5 units, spring quarter (MADDEN)
*Spring, 40*

**241. Wills.**—Devolution of property of a decedent by intestate succession. Wills distinguished from other instruments. Effect of fraud, undue influence, or mistake in the making of wills. Formalities essential to validity. Incorporation by reference. Revocation and republication of wills. Lapse or ademption of devises and bequests. Jurisdiction for grant of probate or administration and effect of such grant on prior acts. Survival of claims; priority of debts and legacies. Prerequisite: Law 206, Real Property. Warren, *Cases on Wills and Administration,* and selected cases.
4 units, winter quarter (TURRENTINE)
4 units, summer quarter, second half (8 recitations weekly) (TURRENTINE)
*Winter, 21; summer, 29*

**242. Future Interests.**—Classification of future interests: rights of entry for condition broken; escheat and possibilities of reverter; reversions, vested remainders and executory interests; contingent remainders; limitations to classes; freehold interests subject to a term; rule in Shelley's Case; future interests in personal property; construction of limitations; powers; the rule against perpetuities; illegal conditions and restraints on alienation. Prerequisite: Law 206, Real Property. Kales, *Cases on Future Interests.*
5 units, spring quarter (TURRENTINE)
*Spring, 5*

**243. Water Rights.**—An intensive study of water rights in the Western States. Extent of riparian rights and liberties; the law of prior appropriation; relative priorities of riparian and non-riparian rights and liberties of use; extinguishment of riparian rights; rights in diffused and underground waters; rights in interstate streams; federal and state powers of control. Prerequisite: Law 206, Real Property. Bingham, *Cases on Water Rights.*
4 units (BINGHAM) [Not given in 1930–31]

**244. Mining Law.**—A course on mining titles under the federal mining acts, with especial reference to mining rights in the Western States and Alaska. Prerequisite: Law 206, Real Property. Costigan, *Cases on Mining Law.*
4 units, autumn quarter (BINGHAM)
*Autumn, 12*

**246. Equity.**—I. The general nature and scope of Equity—Injunctions: historical introduction; the powers of courts of equity; principles governing the exercise of equitable powers. II. Specific performance of contracts: general scope of the remedy; fulfillment of conditions, express and implied; part performance and the Statute of Frauds; equitable conversion by contract; misrepresentation, mistake, and hardship as defenses to specific performance. Cook, *Cases on Equity* (one volume edition).
4 units, autumn quarter; 2 units, winter quarter (MADDEN)
*Autumn, 48; winter, 47*

**246a. Equity.**—Historical introduction; specific performance of contracts; general scope of the remedy; fulfillment of conditions, express and implied; part performance and the Statute of Frauds; equitable conversion by contract; misrepresentation, mistake, and hardship as defenses to specific performance. Cook, *Cases on Equity* (one volume edition).
4 units, summer quarter, first half (8 recitations weekly) (MADDEN)
*Summer, 12*

**247. Trusts.**—The Anglo-American system of uses and trusts. Nature of a trust; other sorts of interests and relations distinguished; the creation, transfer, and extinguishment of trust interests, express, resulting, and constructive; validity of trusts; effect of statutes; charitable trusts; priorities and relative validity of competing equities; importance of the legal title to one claiming adversely to a trust or other equitable interest; remedies of creditors against the trust property; duties of the trustee. Prerequisite: Law 246, Equity. Scott, *Cases on Trusts.*
3 units, winter and spring quarters (BINGHAM)
5 units, summer quarter (GLENN)
*Winter, 14; spring, 15; summer, 29*

**250. Code Pleading.**—The civil action; splitting and joining actions; the complaint, including the caption, the statement of facts, and the prayer for relief; the answer, including general and specific denials, affirmative defenses and counterclaims; the demurrer; the reply; motions; bills of particulars; amendment and aider; construction of pleadings. Selected cases.
4 units, spring quarter (CATHCART)
4 units, summer quarter, second half (8 recitations weekly) (CATHCART)
*Spring, 42; summer, 13*

**251. Evidence I.**—This course deals with certain procedural and substantive law topics commonly considered in connection with evidence though not strictly a part of that subject. They are: judicial notice; functions of court and jury; presumptions; burden of proof; the parol evidence rule including construction of instruments. Thayer, *Cases on Evidence* (Maguire's ed.).
4 units, summer quarter, first half (8 recitations weekly) (NIELSON)
*Summer, 10*

**252. Evidence II.**—Introductory topics; witnesses including competency, privilege, examination, impeachment, and rehabilitation; conjectural evidence; character evidence; hearsay and the exceptions to its exclusion; opinion; real evidence; proof of execution of writings; the "best evidence" rule. Thayer, *Cases on Evidence* (Maguire's ed.), and selected cases.
3 units, winter and spring quarters (WHITTIER)
*Winter, 49; spring, 48*

**253. Practice.**—Procedural problems confronting the lawyer in the commencement and prosecution of civil actions, omitting the subjects of pleading and evidence. The problems are studied as nearly as possible in the order in which they arise in practice. A Court is organized at the beginning of the course in which students are given practice in the institution and conduct

of civil actions, including preparation and service of pleadings, summons, notices, etc.; writs, the making of motions; argument on law and motion matters, setting case for trial, and trial of case before a jury; appeal. Probate and administration proceedings in an estate are also conducted. In connection with the development of the proceedings in Court the following subjects are studied: necessity for a cause of action, statutes of limitation; parties to actions, venue; jurisdiction; methods of obtaining judgments without formal action in court; process; appearance; provisional remedies; motions; trial; verdict; judgment; execution; costs; new trial; appeal. Owens, *Forms and Suggestions for California Practice.*

3 units, autumn, winter, and spring quarters (OWENS)
*Autumn, 17; winter, 14; spring, 14*

**254. Legal Ethics.**—History of the legal profession. Organization of the State Bar of California, disciplinary procedure, and rules of professional conduct. Current problems in legal ethics, e.g., ambulance-chasing; advertising; illegal practice of law by trust companies, collection agencies, etc., and the relation of lawyers to such institutions; contingent fees; fee-splitting; etc. Duty of the lawyer to clients, other lawyers, the courts, and the public. A paper based on research concerning some topic suggested by the course will be required in lieu of final examination. Costigan, *Cases on Legal Ethics,* and selected cases.

2 units, autumn quarter (TURRENTINE)
*Autumn, 26*

**255. Damages.**—Respective functions of court and jury in estimating damages; exemplary, liquidated, nominal, direct, and consequential damages; avoidable consequences; counsel fees; certainty, compensation, damages for non-pecuniary injuries; values; interest; and damages in certain actions of tort and contract. Beale, *Cases on Damages.*

3 units [Not given in 1930–31]

**256. Persons and Domestic Relations.**—Infants; period of infancy; infants' contracts and conveyances, torts, and crimes. Husband and wife; rights of husband as to wife's property; rights of each as to earnings, services, and society of the other; husband's interest in damages for tort to wife; husband's liability for torts or contracts of wife; husband's duty to support wife and wife's authority to bind husband by her contracts; married women's contracts, conveyances, and devises; estoppel of married women; liability of married women for torts and responsibility for crimes; contracts, conveyances, and suits between husband and wife; husband's right to custody of wife. Marriage: promise to marry and breach; marriage as a contract or relation; annulment; divorce; separation. Woodruff, *Cases on Domestic Relations* (3d ed.).

4 units, summer quarter, first half (8 recitations weekly) (RADIN)
*Summer, 14*

**257. Private International Law (Conflict of Laws).**—A study of the influence which considerations of the jurisdiction of a state and considerations of foreign law have upon the decisions of courts in cases involving events or things or persons under foreign jurisdiction. The study includes particularly questions of the jurisdiction of states and of courts, of the effects of foreign judgments and decrees, of legal domicile, of divorce, and of actions for foreign wrongs; property interests, decedent's estates, torts, legal capacity, marriage, marital interests, and contracts. Beale, *Cases on Conflict of Laws* (2d 2 vol. ed).

3 units, autumn and winter quarters (BINGHAM)
*Autumn, 38; winter, 34*

**270. Public International Law.**—Nature and authority of international law; its relation to municipal law; international persons; recognition; nationality and naturalization; territorial authority; authority in the air and on the seas; jurisdictional immunities; jurisdiction of crime and extradition; protection of the interests of foreign states; succession; treaties. Open to students in other departments on petition. Dickinson, *Cases on the Law of Nations.*

4 units, autumn quarter (MORRISON)
*Autumn, 19*

**271. Constitutional Law I.**—Preliminary topics: making and changing constitutions; functions of judiciary in enforcing constitutions; separation and delegation of powers; inter-governmental relations. Political rights. Personal and religious liberty. The Fourteenth Amendment: operation in securing civil rights; due process and equal protection of law as limitations upon procedure, police power, and taxation. In considering the police power somewhat special attention is given to public utility rate regulation. Hall, *Cases on Constitutional Law* (with supplement, 1926), and selected cases.

4 units, autumn quarter (CATHCART)
*Autumn, 47*

**272. Constitutional Law II.**—Protection to persons accused of crime; retroactive laws in civil cases; state laws impairing obligation of contracts; eminent domain. General scope of federal powers; foreign relations, Indians and aliens; territories, dependencies, and new states. Regulation of commerce: duties on imports, exports, and tonnage; interstate and foreign commerce; state legislation affecting national commerce; power of Congress; federal maritime authority. In connection with the power of Congress over commerce and as illustrative of its extent some of the more important federal regulative statutes and especially the Sherman Anti-Trust Act are studied. Hall, *Cases on Constitutional Law* (with supplement, 1926); and selected cases.

4 units, winter quarter (CATHCART)
*Winter, 39*

**273. Public Utilities.**—The regulation and control of common carriers and other public service callings; entry and withdrawal; self-service and collateral business; duty to serve; adequacy and equality of service; dependent and connecting service; liability; limitation of liability. Smith and Dowling, *Cases on Public Utilities.*

2 units, winter quarter; 4 units, spring quarter (MORRISON)
*Winter, 7; spring, 6*

**274. Municipal Corporations.**—Nature; creation, alteration, and dissolution; legislative control; internal organization; powers; liability on contract and for torts; remedies. Case book to be announced.

4 units, summer quarter, second half (8 recitations weekly) (MORRISON)
*Summer, 5*

**275. Taxation.**—The power to tax; distribution of the tax burden; exemptions; taxation of persons and property; jurisdiction to tax; assessment; inheritance taxes; franchise taxes; collection of taxes; taxpayer's remedies; the federal income tax. Rottschaefer, *Cases on Taxation,* and federal income tax regulations.

4 units, spring quarter (MORRISON)
*Spring, 5*

**276. Administrative Law.**—This course is designed to give advanced students a general survey of the field of Administrative Law. The principles considered, with special emphasis on their application to practical modern

problems, are: separation and delegation of powers; validity and effect of administrative regulations and quasi-judicial determinations; jurisdiction and conclusiveness; administrative discretion; relief against administrative action, compensatory and specific, against public officers and the state; the extraordinary legal remedies and equitable jurisdiction in public law. Freund, *Cases on Administrative Law,* and selected cases.

4 units, autumn quarter (TURRENTINE)
*Autumn, 24*

**280. Problems in Administrative Law.**—This course is conducted as a seminar and consists of an intensive study of some phase of administrative law. Its sole aim is to give properly prepared students opportunity to do on their own initiative a constructive and original piece of research. The work is open only to a limited number of advanced students who have had or are taking the course in Administrative Law.

Winter quarter (TURRENTINE) By arrangement
*Winter, 2*

**282. Problems in Administration of Civil Justice.**—Individual study of special problems and written reports upon them under instructor's supervision; group discussions and individual consultations. Problems are chosen by students with instructor's assent from such fields as: court organization; special courts; selection, tenure, and compensation of judges; functioning of the bar; reform of the jury, of pleading, of the rules of evidence, of trial and appellate procedure; costs; legal aid; arbitration and conciliation; proper control of procedure; uniformity; the history of procedure. Open to law graduates and to third-year law students by consent of the instructor.

Autumn, winter, and spring quarters (WHITTIER) [Not given in 1930–31]

**283. Problems in Administration of Criminal Justice.**—Individual study of one or more problems in the general field of criminal law. Problems to be selected, with approval of the instructor, from such fields as: aliens, immigration, appeals, bail, capital punishment, child labor, classification of crimes, confessions, "third degree," corporal punishment, courts, problems of substantive law, such as insanity, self-defense, etc., causes of crime, prevention of crime, detection of crime, drug addiction, drunkenness, eugenics, experts, extradition, grand jury, heredity, homicide, indeterminate sentence, indictment, jails, former jeopardy, jury, juvenile courts, justice of peace, lynching, negroes, moving pictures, parole, penal farms, police, prison aid, prisons and reformatories, probation, procedure, prosecuting attorney, prostitution, psychology, psychopathic laboratories, public defender, recidivists, statistics, statutes, sterilization, suicide, surveys, etc. The course is designed to offer the student an opportunity to do independent work of a research character. Weekly consultation for reports and guidance. Final written report. Open to law graduates and to well-prepared third-year law students by consent of instructor.

Autumn, winter, and spring quarters (VERNIER) [Not given in 1930–31]

**284. Problems in Practice.**—Special problems not covered in the regular course in Practice are worked out by the student under the guidance of the instructor. The time assigned for class work is devoted to group and individual consultations. While in general the problems are assigned by the instructor, students may submit problems they may be particularly interested in, and, if approved, may devote their time to their development.

Autumn quarter (OWENS) By arrangement
*Autumn, 1*

**285. Principles of the Roman and Modern Civil Law.**—A consideration of some of the important principles and conceptions of the Roman Law and modern Civil Law. Open to law graduates and to third-year law students by consent of the instructor. Reading material to be announced.
4 units, winter quarter (OSBORNE)
*Winter, 5*

**286. Jurisprudence.**—Nature and purpose of jurisprudence; schools of jurisprudence; the end of law; its nature; its sources, forms, and modes of growth; its scope and subject-matter; analysis of fundamental legal conceptions; critique of existing law. Assigned readings.
Autumn and spring quarters (BINGHAM) By arrangement
*Autumn, 1; spring, 1*

EXTRA COURSES

**A. Legal Bibliography.**—A detailed study of the use of law books and of the law library. Two series of lectures and assignments, one given to first-year students in the winter quarter and the other to second- and third-year students in the autumn quarter. Both must be taken to secure credit.
1 unit (BRENNER)
*Autumn, 27*

**B. Moot Court.**—Credit will be given to students who have taken Law A and who argue two cases, one of which must be prepared and argued after completing Law A, and who hand in briefs in such cases acceptable to the faculty.
1 unit (BRENNER)
*Autumn, 16; winter, 12*

**C. Patent Law.**—A series of eight lectures on the patent system and patent law.
(LYON)

# SCHOOL OF LETTERS

HARDIN CRAIG, Professor of English, *Chairman of the Council*
SAMUEL SWAYZE SEWARD, JR., Professor of English, *Secretary of the Council*

## ORGANIZATION

The School of Letters includes the following departments and subjects: Classical Literature, English, Germanic Languages, Romanic Languages, and Slavic.

The School is administered through the Council of the School of Letters, composed of those members of the staff of instruction who are also members of the Academic Council.

## THE BACHELOR'S DEGREE

High-school students looking forward to entering the School of Letters are urged to begin as early as possible the study of one ancient and one modern language and also to consult the Chairman of the School, either personally or by letter, at any time, with regard to meeting the conditions for entrance.

Students who have completed the work of the Lower Division and propose to make language and literature the principal element in their program for the junior and senior years may, upon furnishing satisfactory evidence of their fitness to do such work, be enrolled as candidates for the Bachelor's degree. Two plans of study are offered.

I. Those who plan to specialize will ordinarily elect one of the constituent departments in which to do their major work. Such students should consult the announcement of the department in question for prerequisites and requirements. On registration day they will present their credentials to the executive head of the department, or his representative, and will, if accepted as candidates, make out and file, with his approval, a list of studies for the ensuing quarter. On satisfactory completion of the requirements laid down in the announcement of the chosen department, these students will be recommended for the degree of Bachelor of Arts in, for example, English.

II. Students who prefer to range over a somewhat wider field of studies will be permitted, if duly qualified, to enroll as candidates for the degree of Bachelor of Arts in the School of Letters. Applicants for such candidacy will present their credentials to the Chairman of the Council for his approval, on registration day. They must possess a reading knowledge of one ancient and one modern language represented in the School. In the case of one of these languages the fulfillment of the requirement may be postponed until after entrance into the School, provided that the applicant possesses a reading knowledge of two ancient or two modern languages. Thus, an applicant who offers, for example, either (*a*) French and German, or (*b*) Greek and Latin, can satisfy the requirements for graduation as outlined below, by electing (*a*) English, French, and German, or (*b*) English, Greek, and Latin, but must in addition acquire a reading knowledge of one ancient or one modern language, as the case may be, before the end of the senior year. Successful applicants will enroll with the Chairman, choose an adviser from among the members of the Council, communicate such choice in writing to the Chairman, and file with him a copy of a program of studies bearing the adviser's endorsement.

Candidates for the degree of Bachelor of Arts in the School of Letters will elect one of the two following schemes of study, either of which, when satisfactorily completed, will entitle the applicant to recommendation for the degree:

### I. Degree in Course

The student carries on work in a group of at least three literatures represented in the School, attending courses and meeting such tests as are imposed upon all who seek credit for such courses. Thirty units of such credit are required in one literature and fifteen units in each of two others. Only Upper Division courses will be accepted in fulfillment of this requirement, and in these courses only such work will receive credit as involves a reading knowledge of the languages concerned.

### II. Degree by Examination

As an alternative to the course outlined above, students may take the degree of Bachelor of Arts by fulfilling the following requirements:

1. Two years' residence as Upper Division students.
2. At least 30 units of work in courses (freely elected).
3. Passing the following examinations:

*Letters A. Language examinations.*—Examinations (1) in either Greek or Latin, (2) in one modern foreign language. These examinations are on books previously designated and on "unseens." They will test the student's ability to translate accurately and elegantly, and to interpret the passages given. The credit value of these examinations is twenty-four units. The following books have been designated for the language examinations for the academic year, 1930–31:

Greek: Xenophon, *Cyropaedia,* Book I; Homer, *Iliad,* Book VI.

Latin: Cicero, *De Senectute;* Horace, *Epistles,* Book I.

French: Molière, *Tartuffe;* Voltaire, *Siècle de Louis XIV;* Flaubert, *Madame Bovary.*

German: Goethe, *Faust,* Part I; Scheffel, *Ekkehard;* Thomas Mann, *Buddenbrooks.*

Italian: Dante, *Inferno;* Foggazzaro, *Il Piccolo Mondo Antico.*

Russian: Pushkin, *The Captain's Daughter,* 1–3; Lermontov, *The Demon;* Tolstoy, *Prose* (Kegan Paul's Russian Texts).

Spanish: Cervantes, *Don Quixote,* Part I; Echegaray, *El Gran Galeoto.*

*Letters B. Examination in literature.*—Examination on the history and literature of some well-marked period, such as English literature under Elizabeth. The credit value of these examinations is twenty-four units.

*Letters C. Special papers.*—Essays on three authors, one ancient, and two modern, of whom only one shall be English. For the preparation of one of these essays the student will be given at least a month's time; the subjects of the other two will not be given out until three days before the essays are due. A list of the authors chosen must be approved at least one quarter before the examination is taken. The combined credit value of these papers is twelve units.

By the end of his junior year the candidate is expected to have completed enough work (either in courses or by passing examinations) to secure senior standing.

The examining committee will grade the candidates' papers in the usual way and submit the grades to the Registrar's Office. Students taking the degree by examination may receive graduation honors.

Most of the work of preparation for the examinations can be carried on in connection with courses, by doing special reading, submitting essays, etc.; but it should be clearly understood that the examinations are on *subjects,* not courses, and may involve matters not discussed in any course. Further information describing the examinations in greater detail may be obtained from the Chairman of the School.

### TEACHERS' CERTIFICATES

No provision is made for granting teachers' certificates in the field of Letters as distinct from the fields covered by the constituent departments. For information regarding requirements students are referred to the *Announcement of the School of Education.*

### COURSES OF INSTRUCTION

Among the courses offered by the several departments it will be found that the following are general in nature, dealing with more than a single language and literature. For detailed information regarding these courses, consult the departmental announcements.

#### General Linguistics

**Phonetics and General Linguistics.**—Romanic Languages E201.

**Gothic.**—Germanic Languages 221.

**Comparative Grammar of German and English.**—Germanic Languages 231.

**Vulgar Latin.**—Classical Literature B222.

#### General and Comparative Literature

**The Contemporary Short Story.**—English 154b.

**The Arthurian Legends.**—English 167.

**Later European Drama.**—English 171.

**Medieval Literature, with special reference to Middle English.**—English 181.

**Problems and Methods of General Literature.**—English 196*a, b, c.*

**The Utopian Theme.**—English 197.

**Satire.**—English 202.

**Tragedy.**—English 203.

**Comedy.**—English 204.

**The Napoleonic Legend in European and American Literature.**—English 206.

**The Spirit of 1848 in Europe.**—English 207.

**The Life and Thought of the Sixteenth Century.**—English 216.

**Literary Criticism.**—Romanic Languages A152.

**French Arthurian Romances.**—Romanic Languages A205.

**The Romantic Movement.**—Romanic Languages E202.

## BIBLICAL HISTORY AND LITERATURE

DAVID CHARLES GARDNER, Chaplain

**1. The Background of Christianity.**—A study of the development of the religious beliefs and ethical ideals of the Old Testament. A review of the main facts of the life of Jesus as found in the four Gospels and an analysis of the principles of Christian ethics.
2 units, autumn and *spring quarters (GARDNER) TTh 11
*Autumn, 55; spring, 78*

**[New Testament Literature.**—See Classical Literature C26.]

**[English Bible.**—See English 24.]

## CLASSICAL LITERATURE

HENRY RUSHTON FAIRCLOUGH, JEFFERSON ELMORE, Professors Emeritus

AUGUSTUS TABER MURRAY, BENJAMIN OLIVER FOSTER, ERNEST WHITNEY MARTIN, Professors
HENRI GRÉGOIRE (University of Brussels), LUCIUS ROGERS SHERO (Swarthmore College), Acting Professors (Summer Quarter)
RAYMOND DAVIS HARRIMAN, Associate Professor
HAZEL DOROTHY HANSEN, Assistant Professor
JOHN LESLIE CATTERALL, Assistant in Instruction

The Department of Classical Literature has for its aim the interpretation in the broadest sense of the civilizations of Greece and Rome. It accepts as major students those who desire training in Greek and Latin as a preparation for graduate work, either in this University or elsewhere, or who wish to secure teachers' certificates in the classical languages, and also those who, without intending to specialize in Greek or in Latin, wish to make their work in the University conform to the traditional arts course. The student is free to make his major work Greek or Latin at will.

Students who have had no Greek before entering the University may begin their study of the language in any quarter in introductory courses which are open to students in all departments of the University. Students who offer Greek on entrance will be registered in classes adapted to their needs.

In addition to the courses in the Greek and Latin languages, the department offers courses in Classical Literature, History, Archaeology, Art, and allied subjects, which, as indicated below, may be taken by major students as a part of their required work, but which presuppose no knowledge of the Greek and Latin languages, and are open, unless otherwise stated, to students in all departments of the University.

*Graduation.*—The department offers three majors with a normal requirement of forty-five credit units, as follows: (1) Classical Literature, Greek; (2) Classical Literature, Latin; and (3) Classical Literature. For the first of these the student must have completed thirty units in courses in the Greek language plus fifteen units in the general courses offered by the department

(or in courses selected from both Latin and general courses); for the second, thirty units in courses in the Latin language (beyond Course B3) plus fifteen units from the general courses (or in courses selected from both Greek and general courses); and for the third, not less than forty units in Greek and Latin, and not less than five units selected from the general courses.

*Teacher's Certificate.*—The completion of the major requirements for graduation includes the department recommendation for the teacher's certificate, provided that the Teachers' Course in the language chosen has been included in the work offered. Students in other departments who wish to secure a teaching major or minor in Latin or Greek should consult some member of the department.

*Advanced Degrees.*—The department offers to graduate students courses leading to the degrees of Master of Arts and Doctor of Philosophy.

To obtain the Master's degree the candidate must have completed satisfactorily advanced courses amounting to not less than thirty units, have passed written examinations in translation from and into Greek (or Latin), and an oral examination in Greek history, literature, and grammar (or in Roman history, Latin literature, and Latin grammar), and have submitted a thesis indicating ability to make use of sources. In the case of candidates whose advanced courses have included work in both Greek and Latin, the examinations will include questions in both fields.

Intending candidates for the Doctor's degree will consult the University regulations defining the requirements—minimum time devoted to graduate study, residence, ability to use French and German, oral examination, and dissertation. In the Department of Classical Literature, no student will be permitted to apply for the oral examination until he has passed such tests of his knowledge of the field and general fitness for research as the department may see fit to impose.

Attention may be called to the general courses offered in Greek and Roman History (C1–5), Greek and Roman Literature (C20–46), and Classical Art and Archaeology (C51–60). These may often be of special benefit to advanced students, who are naturally best equipped for taking advantage of them.

## A. GREEK COURSES

**A1. Elementary Greek.**—Introduction to Greek through Attic prose. Essential forms; elements of Greek syntax; word-lists from Xenophon; writing of simple sentences; dictation; reading of easy Greek prose.
5 units, each quarter (MURRAY, MARTIN, HANSEN) MTWThF 8
*Autumn, 4; winter, 6; spring, 6*

**A2. Xenophon.**—Readings from the *Anabasis* with a review of Greek grammar.
3 units, each quarter (MURRAY, MARTIN, HANSEN) MWF 10
*Spring, 6; summer, 2*

**A3. Attic Prose.**—Reading of selected passages of simple narrative Greek.
3 units, each quarter (MURRAY, MARTIN, HANSEN) MWF 10

**A13. Individual Work.**—Students and instructors meet each week for free reading in Greek suited to the needs of the individual.
1 to 3 units, each quarter (MURRAY, MARTIN, HANSEN) By arrangement
*Autumn, 7; winter, 4; spring, 1*

**A14. Prose Composition.**—Exercises adapted to the particular needs of the individual student.
2 units, each quarter (MURRAY, MARTIN, HANSEN) By arrangement
*Autumn, 6*

**A15. Rapid Reading.**—Lucian's *Vera Historia* and selected orations of Lysias. Open to those who have had A3, or an equivalent.
2 units, autumn quarter (MARTIN) [Not given in 1930–31]

**A16. New Testament.**—Readings from the Gospels and the Acts.
2 units, each quarter (MARTIN) [Not given in 1930–31]

**A104a. Introduction to Homer.**—Rapid reading of selected books of the *Iliad* and *Odyssey*.
3 units, autumn quarter (HANSEN) MWF 9
*Autumn, 4*

**A104b. Homer** (continued).—Further reading of *Iliad* and *Odyssey*, with discussions of Homeric topics.
3 units, winter quarter (HANSEN) MWF 9
*Winter, 6*

**A105. Plato.**—Reading of the *Apology* and *Crito* with a systematic review of Greek syntax.
3 units, spring quarter (MARTIN) [Not given in 1930–31]

[NOTE.—Three courses (9 to 15 units) chosen from the above with reference to the student's taste and preparation constitute the first year's work in Greek for those who have had no Greek before entering college, and may be counted toward the fulfillment of the foreign-language requirement of the Lower Division. Where possible, it is strongly urged that this work be accomplished during the first two years of residence, especially by those who plan to become Greek majors in Classical Literature.]

**A113. Advanced Individual Work.**—Reading in Greek suited to the needs of the individual.
1 to 3 units, each quarter (MURRAY, MARTIN, HANSEN) By arrangement
*Autumn, 5; winter, 7; spring, 5; summer, 1*

**A114. Advanced Prose Composition.**—Exercises adapted to the particular needs of the individual student.
2 units, spring quarter (MARTIN)
*Spring, 2*

**A115. Greek Metric.**
2 units, winter quarter (MARTIN) TTh 10
*Winter, 4*

**A130. Introduction to Greek Tragedy.**
3 units, spring quarter (HANSEN) MWF 11
*Spring, 3*

**A135. Pausanias.**—Reading of Book I and selections from other Books. Study of the Topography and Monuments of Athens, Delphi, Corinth, and Olympia.
2 units (HANSEN) [Not given in 1930–31]

**A145. Demosthenes.**—Reading of the *De Corona;* sight translation of *Æschines against Ctesiphon.*
3 units, winter quarter (MURRAY) [Not given in 1930–31]

**A148. Thucydides.**—Reading of Books VI and VII.
3 units (MARTIN) [Not given in 1930–31]

**A150. Later Greek Epic.**—Rapid reading in the *Argonautica* of Apollonius Rhodius, and the *Posthomerica* of Quintus Smyrnæus.
2 units (MARTIN, HANSEN) [Not given in 1930–31]

**A154. Introduction to Greek Tragedy.**—Euripides' *Alcestis* and Sophocles' *Antigone.*
3 units, autumn quarter (MURRAY) MWF 8
*Autumn, 8*

**A155. Greek Comedy.**—Selections from Aristophanes and Menander. Open to qualified students.
2 units, spring quarter (MARTIN) [Not given in 1930–31]

**A160. Æschylus.**—Reading of *Prometheus Bound* or *Agamemnon;* lectures.
3 units, spring quarter (HANSEN) MWF 10
*Spring, 4*

**A160a. Greek Tragedy.**
3 units, winter quarter (HANSEN) MWF 10
*Winter, 7*

**A170. Theocritus.**—Reading of the idylls in Greek and a survey of pastoral poetry in ancient and modern literature.
2 units (MURRAY) [Not given in 1930–31]

**A180. Plato.**—Reading of the *Republic,* Books I and II; lectures.
3 units, autumn quarter (MARTIN)
*Autumn, 2*

**A200. Teachers' Course.**—Lectures on methods, with practical training.
2 units, spring quarter (MARTIN) [Not given in 1930–31]

**A220. Modern Greek.**—Grammar (Rangabe); reading of easy texts.
2 units (HANSEN) [Not given in 1930–31]

**A275. Greek Politics and the Athenian Stage during the Fourth Century, B.C.**—Three hours a week, two lectures, and one hour devoted to discussion of the text. The assigned readings may be done in the Greek or in translation.
3 to 4 units, summer quarter (GRÉGOIRE) MWF 11
*Summer, 2*

**A279. Seminar.**—Aeschylus.
4 units, autumn quarter (MURRAY) By arrangement
*Autumn, 4*

**A280. Greek Seminary.**—Graduate students and advanced major students meet each week for the reading of Æschylus and the discussion of papers and reports presented by the members.
2 to 4 units, each quarter (MURRAY) [Not given in 1930–31]

**A281. Aristophanes.**
3 units, winter quarter (MARTIN)
*Winter, 4*

**A281. Euripides and Seneca.**
3 units, spring quarter (MARTIN) TTh 2:05
*Spring, 4*

**A290 (B290). Thesis Work.**
By arrangement
*Autumn, 1; winter, 1*

[From the above courses selection will be made each quarter according to the needs of the students. Precise information will be given in the schedule of courses.]

### B. LATIN COURSES

**B1. Introduction to Latin.**—Grammar and exercises. For students who have had no Latin. May be taken (with B2–B6) in fulfillment of the foreign-language requirement of the Lower Division.
5 units, autumn quarter (CATTERALL) MTWThF 1:05
*Autumn, 4*

**B2. Introduction to Latin** (continued).—Reading of easy prose, exercises in composition, Caesar begun.
5 units, winter quarter (CATTERALL) MTWThF 1:05
*Winter, 4*

**B3. Introduction to Latin** (concluded).—Caesar's *Gallic War,* Books I–IV, or selections from the Gallic and Civil Wars; exercises in composition.
5 units, spring quarter (CATTERALL) MTWThF 1:05
*Spring, 3*

**B4. Cicero.**—Selected *Orations.* Open to students who have had two years of high-school Latin. May be taken (with B5 and B6) in fulfillment of the foreign-language requirement of the Lower Division.
3 units, autumn quarter (HARRIMAN) MWF 11
*Autumn, 8*

**B5. Virgil.**—Selected books of the *Aeneid.* Open to students who have had two years of high-school Latin.
3 units, winter quarter (HARRIMAN) MWF 11
3 units, *summer quarter (SHERO) MWF 10
*Winter, 9; summer, 1*

**B6. Virgil.**—A continuation of B5, but may be taken by any student who has had two years of high-school Latin.
3 units, spring quarter (HARRIMAN) MWF 11
*Spring, 8*

**B14. Terence and Cicero.**—The *Andria* of Terence and the *De Senectute* of Cicero. Open to those who have had four years of high-school Latin or have taken B4–6.
4 units, autumn quarter (FOSTER) MTWF 9
*Autumn, 7*

**B15. Horace.**—Selections from the *Odes* and *Epodes.* Open to those who have had four years of high-school Latin or have taken B4–6.
3 units, winter quarter (FOSTER) MWF 9
*Winter, 9*

**B16. Catullus and Livy.**—Open to those who have had four years of high-school Latin or have taken B4–6.
3 units, spring quarter (FOSTER) MWF 9
*Spring, 7*

**B101. Prose Composition.**—Open to those who have had four years of high-school Latin, or have taken Courses B4–6.
2 units, spring quarter (HARRIMAN) MW 2:05
*Spring, 5*

**B102. Pliny.**—Selections from the *Letters.* Open to those who have had B14–16 or an equivalent.
3 units, autumn quarter (HARRIMAN) [Not given in 1930–31]

**B103. Plautus.**—Selections from the plays of Plautus. Open to those who have had B14–16 or an equivalent.
4 units, winter quarter (FOSTER) [Not given in 1930–31]

**B104. Horace.**—*Satires* and *Epistles.* Open to those who have had B14–16 or an equivalent.
3 units, autumn quarter (FOSTER) MWF 10
*Autumn, 5*

**B106. Tacitus.**—*Histories,* Book I, *Galba, Otho,* and *Vitellius.* Open to those who have had B14–16, or an equivalent.
3 units [Not given in 1930-31]

**B108. Virgil.**—The *Eclogues* and the *Georgics.* Open to students who have had four years of high-school Latin or an equivalent.
3 units, summer quarter (SHERO) MWF 9
*Summer, 8*

**B116. Lucretius.**—Selections from the *De Rerum Natura,* with informal discussions of the Epicurean philosophy and the art of Lucretius.
5 units, spring quarter (FOSTER) MTThF 11
*Spring, 10*

**B124. Juvenal and Martial.**—The first, third, and tenth satires of Juvenal, and selected epigrams of Martial. Open to those who have had two years of college Latin.
5 units (FOSTER, HARRIMAN) [Not given in 1930–31]

**B138. Apuleius.**—Selections from the *Metamorphoses.*
5 units (FOSTER) [Not given in 1930–31]

**B150. Practical Exercises.**—Reading aloud, oral composition, dictation, conversation.
2 units (FOSTER) [Not given in 1930–31]

**B151. Derivation.**—A study of Latin word-formation, with reference to phonology, morphology, semantics, and English derivation.
1 unit (HARRIMAN) [Not given in 1930–31]

**B200. Teachers' Course.**—Lectures and conferences on methods of teaching Latin. Open only to advanced students.
2 units, autumn quarter (HARRIMAN) MW 2:05
*Autumn, 6*

**B203. Cicero.**—Selections from the correspondence of Cicero, illustrative of the man and his age.
5 units (FOSTER) [Not given in 1930–31]

**B222. Vulgar Latin and Introduction to Romance Philology.**—The phonology and morphology of Vulgar Latin; a study of Vulgar Latin texts of the sixth, seventh, and eighth centuries, showing the development of Latin into Romance, especially Spanish, French, and Italian.
3 units, winter quarter (HARRIMAN) [Not given in 1930–31]

**B225. Latin Epigraphy.**—Lectures, with practice in the reading of inscriptions and in the use of the Corpus. Primarily for graduate students.
2 units (MARTIN) [Not given in 1930–31]

**B230. Latin Paleography.**—The ancient and the mediaeval book, with practical exercises in the reading of facsimiles.
2 units (FOSTER) [Not given in 1930–31]

**B245. Mediaeval Latin.**—Reading of representative texts. Intended for both Latin students and students of English or history.
3 units, autumn quarter (HARRIMAN) MWF 1:05
*Autumn, 13*

**B250. Roman Satire.**—Selections from Lucilius to Juvenal.
5 units, summer quarter (SHERO) TTh 2 4
*Summer, 8*

**B278. Introduction to Textual Criticism and Interpretation.**—Caesar's *Commentaries on the Gallic War* is used as the basis for various practical exercises. Open to qualified graduates.
5 units, autumn quarter (FOSTER) TTh 2
*Autumn, 4*

**B279. The First Decade of Livy.**—An introduction to the study of Livy's style, with some practice in text-criticism and interpretation. Open to qualified graduates.
5 units, winter quarter (FOSTER) MTThF 11
*Winter, 10*

**B280. Tacitus.** -The second half of the *Annals* is studied with special emphasis on style. Open to qualified graduates.
5 units (FOSTER) [Not given in 1930–31]

**B281. Petronius.**—The *Cena Trimalchionis* and selections from other sources illustrating the colloquial Latin of the first century A.D.
5 units, winter quarter (HARRIMAN) MTWF 10
*Winter, 6*

**B282. Propertius.**—The reading of a greater part of the poems, with lectures on the development of elegy. Open to graduates and properly qualified undergraduates.
5 units (FOSTER) [Not given in 1930-31]

**B283. General Linguistics.**—Principles of linguistic development, illustrated chiefly from Greek, Latin, English, and the Romance languages. Open to those who have some knowledge of Latin, and of one modern language other than English.
3 units, spring quarter (HARRIMAN) MTW 1:05
*Spring, 11*

**B284. Suetonius.**—The *Life of Augustus* and the *Monumentum Ancyranum* are used as a basis for a study of the Augustan period.
5 units, spring quarter (HARRIMAN) [Not given in 1930–31]

**B285. Historical Grammar of Greek and Latin.**
3 units, winter quarter (HARRIMAN) MWF 1:05
*Winter, 6*

**B290 (A290). Thesis Work.**
By arrangement

## C. GENERAL COURSES

**C1. History of Greece.**—Outline course, from the earliest period to the Persian War. Preliminary survey of the Mediterranean background. Open to all students.
3 units, autumn quarter (HANSEN) MWF 8
*Autumn, 38*

**C2. History of Greece.**—Outline course, from the Persian War to the death of Alexander the Great. Open to all students.
3 units, winter quarter (HANSEN) MWF 8
*Winter, 27*

**C5. History of Rome.**—From the earliest times to the fall of the Western Empire. Development of Roman imperialism and the relation of the Empire to medieval and modern history. Open to all students.
3 units, spring quarter (HARRIMAN) MWF 8
*Spring, 52*

**C9. The Greek Heritage.**—A rapid survey of various phases of Greek civilization with some reference to the survivals of Greek culture in our own life and thought.
3 units, autumn quarter (MARTIN) [Not given in 1930–31]

**C13. Individual Work.**—Specially qualified students will be allowed to register for directed reading of Greek authors in translation.
(MURRAY, MARTIN) By arrangement
*Autumn, 1*

**C20. Greek Literature, Poets.**—Lectures; reading in translations of selections from the greater Greek poets with some reference to their influence on later literature. Open to all students.
3 units, winter quarter (MARTIN) [Not given in 1930–31]

**C21. Greek Literature, Poets.**—(Continued.)
3 units, winter quarter (MARTIN) [Not given in 1930–31]

**C22. Greek Literature, Prose Writers.**—Lectures; reading in translations of selections from Herodotus, Thucydides, Xenophon, Plato, Demosthenes, Plutarch, and Lucian. Open to all students.
3 units, spring quarter (MARTIN) [Not given in 1930–31]

**C24. The Greek Epic.**—Lectures on the poetry of Homer, with reading of both *Iliad* and *Odyssey* in English. Open to all students.
3 units, autumn quarter (MURRAY) MWF 8
*Autumn, 63*

**C25. Greek Tragedy.**—Lectures on the art of tragedy among the Greeks, with the study of selected plays in translation. Open to all students.
3 units, winter quarter (MURRAY) [Not given in 1930–31]

**C26. New Testament Literature.**—Lectures on the origin, authorship, and characteristics of the books of the New Testament. Open to all students.
3 units, spring quarter (MURRAY) [Not given in 1930–31]

**C27. Greek Masterpieces.**—Lectures on the Greek spirit as expressed in various fields: (*a*) the *Odyssey;* (*b*) a Pindaric Ode; (*c*) Greek Tragedy; (*d*) the Greek temple; (*e*) the sculptured form.
3 units, summer quarter (MURRAY) MWF 10
*Summer, 27*

**C28. Ancient and Modern Tragedy.**—A study of tragic themes treated both by ancient artists and those of later periods.
3 units, summer quarter (MURRAY) [Not given in 1930–31]

**C37. Roman Literature of the Republic.**—The chief poets and prose writers of republican Rome. Lectures and assigned readings in English translations. Open to all students.
2 units, winter quarter (FOSTER) TTh 9
*Winter, 17*

**C38. Roman Literature of the Empire.**—Certain of the more important writers of the Augustan and post-Augustan periods. Lectures and assigned readings in English translations. Open to all students.
2 units, spring quarter (FOSTER) TTh 9
*Spring, 35*

**C44. Greek Myths.**—The more important myths and legendary characters of early Greece are traced through Greek literature with some reference to their treatment in later literature. Lectures with assigned reading. Open to all students.
3 units, winter quarter (MARTIN) MWF 11
*Winter, 41*

**C45. Greek Religion.**—In English.
3 units, spring quarter (MARTIN) MWF 11
*Spring, 50*

**C46. Plutarch, the Greek Lives.**—In English.
2 units, winter quarter (MARTIN) [Not given in 1930–31]

**C47. Plutarch, the Roman Lives.**—In English.
2 units, spring quarter (MARTIN) [Not given in 1930–31]

**C49. Plato.**
3 units, autumn quarter (MARTIN) MWF 11
*Autumn, 20*

**C51. Homeric Civilization.**—Illustrated lectures on the civilization of the Bronze and Iron Ages in Greece. Open to all students.
2 units, autumn quarter (HANSEN) [Not given in 1930–31]

**C52. Classical Greek Archaeology.**—Illustrated lectures on Greek civilization with special reference to topography, architecture, coins, vases, etc.
3 units, winter quarter (HANSEN) [Not given in 1930–31]

**C53. Greek Sculpture.**—Illustrated lectures.
3 units, spring quarter (HANSEN) MWF 10
*Spring, 37*

**C55. Roman Art and Archaeology.**
2 units, autumn quarter (HARRIMAN) TTh 8
*Autumn, 26*

**C60. Geography and Topography of Greece.**—Illustrated lectures, with readings in Pausanias. Open to all students.
2 units, spring quarter (HANSEN) [Not given in 1930–31]

**C80. Journal Club.**
2 units, winter quarter (MARTIN) [Not given in 1930–31]

## ENGLISH

MELVILLE BEST ANDERSON, Professor Emeritus

WILLIAM DINSMORE BRIGGS, HARDIN CRAIG, WILLIAM HAWLEY DAVIS (Editor, University Press), HENRY DAVID GRAY, ALBERT LÉON GUÉRARD (General Literature), HOWARD JUDSON HALL, †ARTHUR GARFIELD KENNEDY, SAMUEL SWAYZE SEWARD, JR., Professors

LOUISE POUND (University of Nebraska), Acting Professor (Summer Quarter)

EDITH RONALD MIRRIELEES, FRANCES THERESA RUSSELL, Associate Professors

MARGERY BAILEY, Assistant Professor

MERREL DARE CLUBB (Texas Christian University), Acting Assistant Professor (Summer Quarter)

HARFORD HOLMES HAYS, GEORGE HENRY HINKLE, JOHN MCCLELLAND, DAVID LYALL PATRICK, ARTHUR YVOR WINTERS, Instructors

ARTHUR CLARK HICKS, Acting Instructor (Summer Quarter)

MARY YOST (Dean of Women), Lecturer

ALICE CECILIA COOPER (Modesto Junior College), Lecturer (Summer Quarter)

### REQUIREMENTS FOR THE DEGREE OF BACHELOR OF ARTS

1. The courses ordinarily prescribed in the major subject include the Historical Background for English Literature (to be taken if possible before the junior year), Chaucer, Shakespeare (Courses 25 and 159), the advanced courses (181, 182, 183, 184, 185) in the history of English literature (five quarters), and an advanced course in Spenser, Milton, Wordsworth, or Browning, besides such preliminary courses in composition, vocal expression, or literature as may be advised in individual cases. In the advanced courses in English literature one of the two following substitutions may be made upon advice: (*a*) for Course 182, the course in Elizabethan Drama (170); or (*b*) for Course 183, the course in Modern English Fiction (168). (For the requirements in the case of students making English–Public Speaking their major subject, see below under the Division of Public Speaking.)

†Absent on leave, spring and summer quarters, 1930–31.

2. Each student is required also to pursue work in one foreign language and literature sufficiently to obtain (*a*) a practical reading knowledge of the language, and (*b*) some acquaintance with its most important literature. Students should be sure that their language studies are so planned as to accomplish these ends. The requirement is not primarily a matter of formal credit-hours, but ordinarily demands a minimum of twenty-four units of college work, aside from elementary courses (two years in the high school or one in the university). Introductory courses in Latin and Greek, if pursued in the university, will be counted as college work. Those who make Latin or Greek their principal language are advised, in general, to include two years of work in a modern language among their elective studies; and those who have chosen a modern language are encouraged to include among their elections two years of work in Latin or Greek.

Certain courses (such as 21 and 168, 14, 23, and 27), which cover more or less of the same ground, may not be elected by the same student without consultation with the instructors.

Students in junior colleges, who expect to transfer to the Upper Division as English majors, are advised while in junior college to pursue the study of a foreign language and to take an elementary survey course in Shakespeare.

Lower Division students who plan to work in English under the Independent Study Plan should consult the major department early for detailed requirements.

### GENERAL AND COMPARATIVE LITERATURE

Besides courses in English and American literature the English department offers courses in general literature, as follows: 15, 16, 24, 139, 167, 169, 171, 196*a*, 196*b*, 196*c*, 197, 203, 204, 206, 207, 208, 209. In these courses the language of instruction is English, and the reading may be done in English. But the field of study is not limited by linguistic or national boundaries. It comprises: (1) literary problems of a general character, (2) the mutual influences of national literatures, and (3) masterpieces of world literature. The following courses, given in English by other departments, afford a survey of world literature: Classical Literature courses in Group C; Germanic Languages 91; Romanic Languages C140, C150, E202; Slavic Literature C1, C100, C101, C102, C103, C104, C105.

### THE TEACHER'S RECOMMENDATION

Students wishing to obtain certificates entitling them to teach in the junior high schools or the high schools of California should consult the *Announcement of the School of Education*. In that pamphlet are set forth not only the general requirements laid down by the State Board of Education, but also the specific requirements on the basis of which properly qualified students may apply for the recommendation in English, as a major or a minor subject.

### ADVANCED DEGREES

*Eligibility*.—Anyone may enter upon graduate work at Stanford University, with the intention of becoming a candidate for a higher degree in English, who has received a Bachelor's degree from any college or university of accredited standing. However, students whose previous preparation falls short of the requirements for the degree of Bachelor of Arts in English at

Stanford must expect to spend more than the minimum time in residence. The department reserves the right, moreover, to reject old credits for graduate work done either at Stanford or elsewhere. Any student planning to apply for an advanced degree in English should, unless he has very recently received a degree in English at Stanford, file with the department as early as possible a complete statement showing the previous work done in English and allied fields of study.

*Time of Residence.*—Three quarters of full-time work at Stanford, or the equivalent in part-time work during a longer period, are required for the degree of Master of Arts.

Three years of full-time work or their equivalent are the minimum required for the degree of Doctor of Philosophy. Of these, one full year other than the first must be at this University. Candidates not specially well prepared should expect to spend more than the minimum period of three years in order to obtain the Doctorate in English.

While no definite number of units is required of graduate students, twelve or thirteen units per quarter is regarded as constituting a normal amount of work. The nature of the courses selected will determine the number of courses which it will be advisable to choose.

Except under extraordinary circumstances, it is not possible to secure both the Teacher's Recommendation and the degree of Master of Arts in one year of graduate study. The courses required by the School of Education make it impossible to devote the necessary proportion of time to English. But in some cases, where certain requirements of the School of Education have been met in advance, it has been found possible to secure the Master's degree by an additional quarter of study. The summer quarter provides for such students the opportunity for securing both the Master's degree and the Teacher's Recommendation.

*Language Requirements.*—A candidate for the degree of Master of Arts must have an elementary knowledge of Old English, which can be secured by electing the course in Old English while at Stanford, and a reading knowledge of two foreign languages (preferably one ancient and one modern).

A candidate for the degree of Doctor of Philosophy must have a reading knowledge of Latin, German, and French adequate for the accurate comprehension of technical articles in the student's special field of study.

All persons looking forward to candidacy for advanced degrees in English at this University are urged to complete as much as possible of this language preparation before coming, in order to save time while on the ground, since such work is not accepted as graduate work.

At the time that the candidate files his application for the degree of Doctor of Philosophy, he must present a certificate showing that he has satisfied the foreign-language requirement.

*Application for Candidacy.*—Candidates for the degree of Master of Arts must make out, in consultation with their major professor, a program of courses constituting a full year's work. This should be done during the first four weeks of the quarter preceding that in which the degree is to be granted. In addition to the courses taken and to be taken, the application for candidacy must include the subject of the thesis.

Candidates for the degree of Doctor of Philosophy should file their application for candidacy during the year preceding that in which the degree

is to be granted. This application includes the full program of the three years' study and the subject of the dissertation.

Changes in the title of the thesis or dissertation or in the program of study may be made with the consent of the major professor and the approval of the Graduate Study Committee.

*Thesis or Dissertation.*—The Master's thesis may not be counted for more than 9 units of credit. It must be presented in its finished form to the professor under whose direction it is written at least two weeks before the close of the term in which the degree is to be granted.

The Doctor's dissertation may be counted for the equivalent of one full year of graduate study. It must be finished and submitted at least six weeks before the close of the final quarter.

*Minor Subjects.*—The candidate for the degree of Master of Arts in English does not present a minor in any other department.

The candidate for the degree of Doctor of Philosophy may choose either one or two minor subjects at his discretion. With the approval of the department and by vote of the Graduate Study Committee, the minor subject requirement may be waived, provided an equivalent amount of time be devoted to a program of study made up of advanced courses in other departments of the School of Letters, and such other courses as the department may think necessary.

*Examinations.*—The candidate for the Master's degree must pass a written examination covering the whole field of English and American Literature. This examination will be held each quarter, and should not be taken in the quarter in which the degree is granted. A second failure to pass the examination disqualifies the candidate.

All candidates for the Doctorate must take written examinations on the history of the English language and on the history of English literature. These examinations should be taken at latest in the quarter preceding that set for the University oral examination. This last examination is set at some time not later than the eighth week of the last (academic) year of candidacy. For details regarding this examination the candidate should consult his major professor.

## LOWER DIVISION COURSES

**A. Elementary Composition.**—A one-quarter course required of all first-year undergraduates who do not pass the matriculation test in English.

1 unit, autumn, *winter, and *spring quarters (SEWARD and OTHERS)
*Autumn, 12; winter, 91 (4 sections); spring, 36 (2 sections)* TThS 8; MWF 9, 10, 11

[For each student in Course A, except those who meet the requirement within a short time, a fee of $10 is charged.]

**2. English Composition.**

*a*) Narration and Description.

*b*) Exposition.

3 units, any two quarters (SEWARD, HAYS, HINKLE, MCCLELLAND, PATRICK, WINTERS) MWF 8, 9, 10, 11, 1:05; TThS 8, 9, 10
*Autumn, 334 (14 sections); winter, 354 (15 sections); spring, 246 (12 sections); summer, 19 (2 sections)*

[Students having ninety or more units of credit, if registered in any of the following Lower Division courses, shall receive one unit less than the regular specified credit.]

**9a. American Literature.**—To the Civil War.

4 units, winter quarter (HALL) MTWF 9
*Winter, 50*

**9b. American Literature.**—From the Civil War to the present.
3 units, spring quarter (HALL) MWF 9
*Spring, 46*

**10. English Masterpieces.**—A study of representative works of important English writers. (*a*) Writers before 1780; (*b*) Writers from 1780 to the present. Not open to those who intend to major in English.
4 units, autumn, *winter, *spring, and *summer quarters (HINKLE, McCLELLAND, WINTERS) MTWTh 8, 9, 10, 11
*Autumn, 162 (2 sections); winter, 42; spring, 82 (2 sections); summer, 27*

**11. Introduction to Poetry.**—A study of the nature, methods, and forms of poetry, with exercises in analysis and interpretation. Open to students of all departments. Courses 11 and 18 may not both be counted for credit by the same student.
4 units, autumn quarter (SEWARD) MTWTh 11
*Autumn, 16*

**12. The Contemporary Essay.**—Modern essays, English and American.
3 units, spring quarter (RUSSELL) MWF 10
*Spring, 22*

**13. Biography.**—A study of selected biographies and memoirs.
3 units, spring quarter (MIRRIELEES) MWF 10
*Spring, 44*

**14. Tennyson.**—A study of portions of Tennyson's poems, illustrating the growth of his literary art; designed for and open to Lower Division students only.
4 units (HALL) [Not given in 1930–31]

**15. The International Study of Literature.**—An introductory course in literary theory. Open to all students specially interested in literature.
3 units, autumn quarter (GUÉRARD) MWF 9
*Autumn, 36*

**16. World Literature: A Survey.**—Readings in translated masterpieces.
3 units (GUÉRARD) [Not given in 1930–31]

**18. Types of Poetry.**—An introduction to English narrative and lyric poetry considered in respect to content, form, and the nature of its appeal. Courses 11 and 18 may not both be counted for credit by the same student.
4 units (HALL) [Not given in 1930–31]

**21. Victorian Novelists.**—A study of the more important Victorian novelists. Courses 21, 22, and 23 are not open to students who expect to major in English. Not more than one of them may be counted toward a degree if Course 185 is also counted.
4 units (SEWARD) [Not given in 1930–31]

**22. Victorian Prose.**—A study of the more important Victorian prose writers other than novelists. See under Course 21.
3 units (SEWARD) [Not given in 1930–31]

**23. Victorian Poetry.**—A study of the more important English poets of the period that includes Tennyson and Swinburne. See under Course 21.
3 units, winter quarter (McCLELLAND) MWF 11
*Winter, 48*

**24. English Bible.**—Representative portions of the Old Testament studied as literature.
4 units, autumn quarter (GRAY) MTWTh 11
*Autumn, 15*

**25. Shakespeare.**—An introduction to Shakespeare, with rapid reading of most of the plays, in chronological sequence. Open to all students; continued in Course 159.
4 units, autumn, *spring, and *summer quarters (Bailey, Davis)
*Autumn, 81; spring, 25; summer, 22*

**27. Browning.**—An introductory course, concerned chiefly with the shorter poems.
3 units, summer quarter (Russell) MWF 10
*Summer, 11*

ADVANCED COURSES

[Unless otherwise specified, the following courses are open to third-year and fourth-year students of all departments.]

**125. Analysis of Literary Style.**—Discussion and written examination of selected passages of prose and poetry, with the design of developing in the student a conscious sense of literary style.
4 units, spring quarter (McClelland) MWF 9
*Spring, 27*

**130. Advanced Composition.**—A course intermediate between the elementary and the more specialized branches of writing. Practice in various forms, with formulated criticism and illustrative reading.
4 units, autumn quarter (Russell) MTWF 11
*Autumn, 23*

**131. Exposition.**—An advanced course, intended primarily for students doing scientific and professional work. Special attention will be given to students preparing theses or other papers. Prerequisite: Course 2 or an equivalent.
3 units, autumn, *winter, and *spring quarters (Hall, Seward) MWF 10, TTh 10
*Autumn, 53; winter, 70; spring, 59*

**132. Argumentation.**—[See under Division of Public Speaking. The course is strongly commended to all English and other students.]

**134. Dramatic Composition.**—The principles of dramatic writing developed in connection with the student's own work. Enrollment limited; students must submit specimens of their work in advance.
3 units (Gray) [Not given in 1930–31]

**135. Verse Writing and Prosody.**—Practical exercises in lyric composition, with illustrative study of modern poets.
2 units (Seward) [Not given in 1930–31]

**136. Short Story Writing.**—Open only after consultation with the instructor.
4 units, winter and spring quarters (Mirrielees) MTWTh 11
*Winter, 18; spring, 20*

**137. Essay Writing.**—Preparation of magazine articles, criticisms, and papers of both informal and analytical character.
3 units, spring quarter (Russell) MWF 11
*Spring, 14*

**138. Narrative Writing.**—Open by permission to students interested in forms of narrative writing other than the short story.
4 units, winter quarter (Mirrielees) MTWTh 10
*Winter, 10*

**139. Directed Reading.**—Eight hours of reading weekly, with informal reports and discussion. The course furnishes an opportunity for students to read books which are not assigned in connection with their other courses. Open in order of application to a limited number of upper-class students

from other departments; not to English major students. May not be taken for more than two quarters. Preference in registration is given to students who have not already taken the course.
2 units, autumn, *winter, and *spring quarters (SEWARD and OTHERS)
*Autumn, 63; winter, 84; spring, 82*

**140. Historical Background for English Literature.**—Open to English major students.
5 units, autumn quarter (MIRRIELEES) MTWThF 8
*Autumn, 38*

**154a. History of the Short Story in English.**
4 units, autumn quarter (MIRRIELEES) MTWTh 9
*Autumn, 10*

**154b. The Contemporary Short Story.**—Students who have not carried 154*a* should confer with the instructor before registering.
3 units, winter quarter (MIRRIELEES) MTW 9
*Winter, 19*

**156. Ballads.**—Lectures and reports on the origin, sources, and characteristics of the English and Scottish popular ballads. Class limited to sixteen.
3 units, spring quarter (BAILEY) MWF 10
*Spring, 10*

**158. Chaucer.**—An elementary course, including an outline of Middle English grammar. This course may be taken by graduate students in English for graduate credit, provided extra work be assigned by the instructor.
4 units, winter quarter (CRAIG) TWThF 11
*Winter, 49*

**159. Shakespeare.**—A continuation of Course 25, devoted to a more intensive study of a few plays. Designed primarily for English major students in their third year; open to others on recommendation from Course 25.
4 units, winter quarter (BAILEY) MWThF 9
*Winter, 51*

**160. Spenser.**
4 units, winter quarter (BRIGGS) MTWTh 10
*Winter, 17*

**161. Milton.**
3 units (BRIGGS) [Not given in 1930–31]

**162. Wordsworth.**
3 units (HALL) [Not given in 1930–31]

**163. Browning.**—*The Ring and the Book,* with a selection from the dramas and longer poems.
4 units, autumn, *spring, and *summer quarters (RUSSELL) MTWF 10, MW 2–4
*Autumn, 9; spring, 23; summer, 1*

**164. Carlyle.**—A study of his essays, histories, and other works.
3 units, summer quarter (DAVIS) TTh 9
*Summer, 2*

**165. Emerson.**—A study of his essays and poems.
3 units, winter quarter (DAVIS) TTh 9 and a third hour by arrangement
*Winter, 3*

**167. The Arthurian Legends.**—Their origin and literary utilization from early times to the present.
3 units (DAVIS) [Not given in 1930–31]

**168. The English Novel.**—The history of English prose fiction from DeFoe to the greater novelists of the nineteenth century.
4 units, spring quarter (BRIGGS) MTWTh 10
*Spring, 29*

**169. The Contemporary Novel.**—Lectures on English and American fiction, with the reading of representative novels and reports upon them. Open to third-year and fourth-year students of all departments.
4 units (GRAY) [Not given in 1930–31]

**170. The English Drama to 1642.**—The beginnings and development of the drama are specially studied.
4 units, summer quarter (CRAIG) TWThF 8
*Summer, 12*

**171. Later European Drama.**—A study of Ibsen and of subsequent dramatists. Open to third-year and fourth-year students of all departments.
5 units, winter quarter (GRAY) MTWThF 10
*Winter, 37*

**172. English Comedy, 1660–1780.**—Lectures and reports on the comic spirit in English drama, from the plays of wit to the plays of sensibility and the return to humor in Goldsmith and Sheridan.
4 units, spring quarter (BAILEY) MWThF 11
*Spring, 9*

**173. Contemporary Poetry.**—A survey of English and American poetry since 1890, with especial attention to the poetic revival of the present time.
4 units, spring quarter (GRAY) MTWTh 9
*Spring, 47*

**174. The English Essay in the Seventeenth and Eighteenth Centuries.**—A study of the type, with some reading in the classic antecedents.
3 units (RUSSELL) [Not given in 1930–31]

**175. The English Essay in the Nineteenth Century.**
3 units, summer quarter (RUSSELL) MWF 11
*Summer, 11*

**181. Medieval Literature with special reference to Middle English.**—The course serves as a general introduction to medieval European literature, which is studied by types: romances, histories, lyrics, legends, etc.
4 units, autumn and *summer quarters (KENNEDY, CLUBB) MTWF 11
*Autumn, 51; summer, 12*

**182. English Literature from 1557 to 1660, exclusive of the Drama.**
4 units, spring quarter (CRAIG) TWThF 8
*Spring, 42*

**183. English Literature from 1660 to 1780.**
4 units, autumn quarter (BAILEY) MWThF 9
*Autumn, 53*

**184. English Literature from 1780 to 1832.**
4 units, winter and *summer quarters (HALL) MTWF 8, 1:05
*Winter, 37; summer, 17*

**185. English Literature from 1832 to 1900.**—Not open to those who have taken two or more of the courses in Victorian literature, 21, 22, and 23.
4 units, spring quarter (SEWARD) MTWTh 11
*Spring, 41*

**186. Criticism of Recent Literature.**—Practical analysis and valuation; book reviews and discussions.
3 units (RUSSELL) [Not given in 1930–31]

**189. Special Work.**—Under exceptional circumstances Upper Division students may enroll for special work under the supervision of some member of the department for credit not to exceed four units a quarter.
Any quarter By arrangement
*Autumn, 7; winter, 12; spring, 10; summer, 2*

GRADUATE AND UNDERGRADUATE COURSES

**190. American Literature.**—Studies in American literature from the beginning of the nineteenth century.
4 units, spring quarter (HALL) MTWF 8
*Spring, 12*

**191. Essay Writing.**—An opportunity for the crystallizing and formulating of opinion on such subjects as education, government, recreation, art, and personal relationships.
3 units (RUSSELL) [Not given in 1930–31]

**192. Old English.**—Elements of Old English grammar, with reading exercises.
4 units, winter and *summer quarters (KENNEDY, CLUBB) MTWF 10
*Winter, 15; summer, 8*

**194. History of English Criticism.**—A study of critical theory from the Renascence to the early eighteenth century.
3 units, autumn and *summer quarters (BRIGGS) MWTh 10
*Autumn, 14; summer, 15*

**195. Middle English Readings.**—A study of the history and dialects of Middle English with readings from representative selections from the literature. Intended for students who have had an elementary course in Middle English grammar, such as English 158.
4 units, winter quarter (KENNEDY) MTWF 9
*Winter, 4*

**196a. Problems and Methods of General Literature: Literature and Civilization.**—In this and in Courses 196*b* and 196*c* a reading knowledge of one or more modern Continental languages is desirable, but not indispensable.
3 units, autumn quarter (GUÉRARD) MWF 8
*Autumn, 25*

**196b. Problems and Methods of General Literature: Types of Criticism.**—[See under Course 196*a*.]
3 units, winter quarter (GUÉRARD) MWF 8
*Winter, 10*

**196c. Problems and Methods of General Literature: The Doctrine of Art for Art's Sake.**—[See under Course 196*a*.]
3 units, spring quarter (GUÉRARD) MWF 8
*Spring, 16*

**197. The Utopian Theme.**—A study of the Utopian idea and related social and political conceptions, as expressed in literature.
3 units, summer quarter (RUSSELL) MW 2–3:30
*Summer, 7*

**198. The Modern English Language.**—A study of usage in pronunciation, grammar, etc., in the light of the more recent history of the language.
4 units, autumn quarter (KENNEDY) MTWF 9
*Autumn, 23*

**198b. American English.**—A study of the development of the English language in the United States: its beginnings, relation to the mother tongue, pronunciation, spelling, expanding vocabulary, divergent usages, the common speech, dialects, present tendencies.
4 units, summer quarter (POUND) MTWTh 9
*Summer, 17*

**199. Verse Forms.**—A study of metrics and verse forms in their relation to content.
2 units, winter and *summer quarters (SEWARD, COOPER) TTh 1:05, MTTh1:05
*Winter, 27; summer, 14*

**200. The English Teacher's Equipment.**—A constructive study of the problems that face the English teacher in the high school; designed as an introduction to the Teachers' Course in the subject.

(*a*) Composition. 2 units, autumn quarter (SEWARD) TTh 1:05
(*b*) Literature. 2 units, spring quarter (SEWARD) TTh 1:05
(*c*) Oral Reading. 2 units, winter quarter (BASSETT) M 2:05–4:05
*Autumn, 18; winter, 19; spring, 19*

## GRADUATE COURSES

**201. Bibliography and Methods.**—An introduction to the materials and methods of advanced study in English. Recommended for all candidates for higher degrees in English. This course is open to graduate students in English only.

3 units, autumn quarter (KENNEDY) MWF 10
*Autumn, 17*

**201b. Introduction to the Study of the History of Literature.**
4 units, winter quarter (BRIGGS) MW 2–4
*Winter, 8*

**202. Satire.**—A study of the satiric element in literature, exemplified by some particular phase selected for specialization.
4 units (RUSSELL) [Not given in 1930–31]

**203. Tragedy.**—A comparative study of the theory and practice of tragedy in various literatures.
4 units, spring quarter (GRAY) MW 2–4
*Spring, 9*

**204. Comedy.**—An inquiry into the nature of the comic and into its literary uses, as exemplified especially in the drama.
4 units (2 winter, 2 spring) (SEWARD) F 1:05–3
*Winter, 5; spring, 5*

**206. The Napoleonic Legend in European and American Literature.**—Prerequisites are a course (in school or college) in modern European history, and a reading knowledge of at least one modern Continental language.
3 units, winter quarter (GUÉRARD) T 1:05–3
*Winter, 4*

**207. The Spirit of 1848 in Europe.**—Culmination and frustration of the Romantic ideal; the new scientific-industrial era. Prerequisites as for Course 206.
3 units (GUÉRARD) [Not given in 1930–31]

**208. The Historical Spirit in Literature.**—Its growth from 1700 to the present day. Prerequisites as for Course 206.
3 units (GUÉRARD) [Not given in 1930–31]

**209. International Literature.**—Investigation into such problems as: language and national psychology; home language, official language, artificial language; artistic creation and appreciation in a foreign language; possibilities of literary translation; effects of polyglottism; growth and organization of an international public (Nobel Prizes, etc.).
3 units, spring quarter (GUÉRARD) T 1:05–3
*Spring, 4*

**210. Chaucer.**—The minor poems, with attention to the structure and history of the works and their literary significance. Undergraduates of suitable standing in the elementary course in Chaucer will be admitted.
2 units (CRAIG) [Not given in 1930–31]

**211. Shakespeare.**—An introduction to the bibliography of Shakespearean literature, the history of the text, methods of critical study, special problems, and the study of one or more plays.
4 units, autumn, winter, and spring quarters (Craig, Gray) TTh 2–4
*Autumn, 8; winter, 8; spring, 11*

**212. Problems of Victorian Literature.**—A study of selected topics involving the literary background of the period.
4 units (Seward) [Not given in 1930–31]

**215. Elizabethan Drama Seminary.**
4 units
*a*) Authorship Problems (Gray) [Not given in 1930–31]
*b*) Marlowe (Briggs) [Not given in 1930–31]

**216. The Life and Thought of the Sixteenth Century.**
4 units, autumn and summer quarters (Briggs) MW 2–4, TTh 4
*Autumn, 9; summer, 3*

**217. Eighteenth Century.**—The romantic age, its antecedents and consequences. Students will be expected to pursue the course for two quarters, of which (*a*) should constitute the first and either (*b*) or (*c*) the second.
4 units (Bailey) T 7:30 P.M.
*a*) Age of the Restoration, autumn quarter
*b*) Age of Reason, winter quarter
*c*) Age of Sensibility, spring quarter
*Autumn, 7; winter, 8; spring, 6*

**218. Early English Seminary.**—The medieval drama.
4 units (Craig) [Not given in 1930–31]

**220. American Colonial Literature.**—A research course. Prerequisites: American history and English literature of the eighteenth century.
4 units, summer quarter (Hall) WF4
*Summer, 6*

**221. Literary Problems of the English Renaissance.**
4 units, summer quarter (Craig) TTh 2–4
*Summer, 15*

**222. Bacon.**
4 units, spring quarter (Briggs) TW 4
*Spring, 7*

**223. English and Scottish Ballads and Folk Song.**—Problems of origin. Relation of ballads to primitive poetry and to other forms of folk literature. Conflicting views. Folk song in the United States.
4 units, summer quarter (Pound) MTWTh 11
*Summer, 20*

**225. History of the English Language.**—A study of the earlier history of the language, and an introduction to Germanic philology. A knowledge of Old English is required.
4 units (Kennedy) [Not given in 1930–31]

**228. Beowulf.**—Course 192 or an equivalent is a prerequisite for this course.
4 units (Kennedy) [Not given in 1930–31]

**235. Research Course.**—In this course, the student pursues a special subject of investigation under the supervision of some member of the department. Thesis work is not to be registered under this course.
Any quarter By arrangement
*Autumn, 4; winter, 5; spring, 3; summer, 2*

**[Teachers' Course in English.**—See Education 208.]

**The English Review Club** meets for the discussion of recent publications of interest to students of English on the second Monday of each month from 7:30 to 9 P. M. All English graduate students, members of the departmental faculty, and undergraduates doing advanced work are invited to attend the meetings.

## DIVISION OF PUBLIC SPEAKING

LEE EMERSON BASSETT, Professor
ELISABETH LEE BUCKINGHAM, JAMES GORDON EMERSON, Associate Professors
HAROLD HELVENSTON, Assistant Professor, and Acting Director of Dramatics
VIRGIL ANTRIS ANDERSON, HARRY FREDERICK STOVER, Instructors
LELAND TAYLOR CHAPIN, Acting Instructor
CARL ANDREW BOWMAN, Assistant in Instruction

The Division of Public Speaking offers such courses, together with personal conferences, as may help the student to gain self-control and self-reliance, to realize and use his latent resources and powers, and contribute to his usefulness as a citizen.

The courses in the Division offer instruction in the theory of argumentation and speech-making, and practice in the organization and presentation of speeches and arguments; bring the student in direct and vital contact with the thought and spirit of the best literature through the vocal rendering of it; give practical drill in the use of the voice, in phonetics and diction; provide training in stage technique and dramatics; and prepare candidates to teach the various branches of Public Speaking.

*Degree of Bachelor of Arts.*—The requirements for the degree of Bachelor of Arts in English–Public Speaking are the satisfactory completion of about thirty units in Public Speaking and, in addition, the following courses in English: Shakespeare (25), History of English Literature (183, 184), and three courses selected from the following list: 14, 21–23, 27 (or 163), 154*a*, 158–62, 168–71, 173–75, 181, 182, 185, 190, 192–99. Lower Division students are advised to complete, if possible, during their first year Courses 4 and 5 in Public Speaking; and during their second year Courses 7 and 119. Candidates for the degree are required to have the same reading knowledge of at least one foreign language as English major students.

*Degree of Master of Arts.*—Candidates for the degree of Master of Arts in English–Public Speaking should have the equivalent of the requirements for the degree of Bachelor of Arts in English–Public Speaking at Stanford. They must meet the general requirements for the Master of Arts degree in English, with the exception that graduate courses in Public Speaking may be substituted for a certain number of units in English and that theses may be prepared on subjects in the field of Public Speaking under the direction of a professor of the Division. They must complete either English 192 (Old English) or English 198 (The Modern English Language), and must have a reading knowledge of two foreign languages. Further selection of courses for the degree is to be made from the Department of English and the Divi-

sion of Public Speaking, with such exceptions as may meet with the approval of the major professor.

The candidate for the Master's degree in English–Public Speaking must pass a written examination covering portions of English literature represented by three of the courses 181, 182, 183, 184, and 185, in the History of English Literature, and the field of Public Speaking represented by undergraduate courses offered by the Division of Public Speaking.

*Teacher's Recommendation.*—Students desiring the teacher's recommendation from the University as majors or minors in Public Speaking are referred to the *Annual Announcement of the School of Education.*

[NOTE.—*Undergraduate courses in Public Speaking are, with a few exceptions, open to but a limited number of students;* students should apply for admission to courses at the Division of Public Speaking on registration day. The instructor reserves the right to refuse to enroll students who do not appear at the first meeting of the class.]

## LOWER DIVISION COURSES

**4. Principles of Vocal Expression.**—A general course in vocal training, the use of the speaking voice, the vocal interpretation of masterpieces in prose and poetry, and practice in the preparation and delivery of short speeches. Class recitations and personal conferences. Sections limited to twenty students.

3 units, autumn, *winter, *spring, and *summer quarters (ANDERSON, BUCKINGHAM, CHAPIN) MWF 8, 9, 10, 11; TThS 9
*Autumn, 52 (3 sections); winter, 53 (3 sections); spring, 60 (3 sections); summer, 34 (2 sections)*

**5. Reading Aloud.**—The oral rendering of various forms of literature. Particular attention is given to rhythm, time, melody, quality, and other musical elements of verse. Assignments for general class practice and for individual study and rendition. Prerequisite: Course 4 or its equivalent. Sections limited to twenty students.

3 units, autumn and *spring quarters (BUCKINGHAM) MWF 11
*Autumn, 13; spring, 22*

**6. Practical Phonetics.**—A course in the enunciation and pronunciation of the English language. Designed especially for foreign students.

1 unit, winter and *spring quarters (BASSETT) T 1:05
*Winter, 9; spring, 8*

**7. Extemporaneous Speaking.**—Practice in extemporaneous speaking on subjects of the student's choice, with attention to the preparation of speech outlines. Not open to first-year students. Sections limited to eighteen students.

3 units, autumn, *winter, *spring, and *summer quarters (BASSETT, EMERSON, ANDERSON, BOWMAN, CHAPIN) MWF 8, 9, 10, 11; TTh S 9, 10
*Autumn, 94 (5 sections); winter, 89 (5 sections); spring, 99 (5 sections); summer, 25 (2 sections)*

**8. Public Speaking.**—A continuation of Course 7 with particular reference to elements of attention. Limited to eighteen students.

3 units, autumn, *winter, and *spring quarters
autumn (BASSETT) MWF 9; winter and spring (EMERSON) MWF 10
*Autumn, 17; winter, 18; spring, 19*

## UPPER DIVISION COURSES

**116. Public Speaking** (advanced).—A study of models of speech composition and the preparation of original speeches, with special attention to the style of spoken discourse. Prerequisites: Courses 7 and 8.

3 units, winter quarter (BASSETT) MWF 9
*Winter, 17*

**119. Vocal Interpretation of Shakespeare.**—Certain plays of Shakespeare are read with emphasis on voice quality, diction, interpretation of the lines, and characterization. Parts are frequently assigned for individual study. Prerequisites: Courses 4 and 5. Limited to twenty students.
2 units, spring quarter (BUCKINGHAM) W 2:05–4:05
*Spring, 22*

**121. Theatrical Workshop.**—Instruction in the technical practice of the stage with particular attention to the design and construction of stage scenery, and to properties, costume, lighting, stage management, and miscellaneous phases of stage craft. Lectures and laboratory.
4 units, autumn, *winter, and *summer quarters (STOVER) TTh 1:05–3:05
*Autumn, 11; winter, 12; summer, 5*

**125. Scenic Design.**—A study of stage production from the designer's point of view with particular emphasis on the conception and execution of scenery for the various forms of the drama. Individual problems in designing settings for plays and practical work on productions in the University Theater.
3 units, autumn, *winter, and *summer quarters (STOVER)
*Autumn, 5; winter, 6; summer, 11* M 1:05–3:05, TTh 3:05–4:05

**132. Argumentation.**—The theory of argumentation, with practice in the preparation of briefs and in the writing of arguments, together with a critical analysis of argumentative masterpieces. Open to all students who have made a satisfactory grade in English 2.
3 units, autumn and *summer quarters (EMERSON) MWF 9, 10
*Autumn, 19; summer, 12*

**133. Public Discussion.**—Individual and group discussion of topics of current public interest. Open to juniors and seniors who have completed Courses 7 and 8.
3 units, spring quarter (EMERSON) MWF 9
*Spring, 17*

**149. Voice Training.**—Lectures on the voice, with class exercises. Limited to majors and minors in Public Speaking.
2 units, autumn quarter (BASSETT, BUCKINGHAM) MW 2:05–3:05
*Autumn, 25*

**151. Reading Aloud** (advanced).—A course in the preparation of poems, stories, and scenes from novels and plays suitable for public presentation. Prerequisites: Courses 4 and 5.
2 units, spring quarter [Not given in 1930–31]

**152. Debate.**—Under supervision of the department those students who work on intercollegiate debate questions may receive credit upon satisfactory completion of the work.
1 or 2 units, any quarter except summer (EMERSON) By arrangement
*Autumn, 19; winter, 15; spring, 3*

**160. Acting: Theory and Performance.**—The principles of dramatic interpretation and characterization. Problems of make-up. Study of the technique of acting by actual performance of plays in the Little Theatre. Limited to thirty-two students.
3 units, autumn, *winter, and *summer quarters (HELVENSTON)
M 3:05–4:05, W 2:05–4:05
*Autumn, 33; winter, 41; summer, 17*

**161. Stage Direction.**—Emphasis upon direction of school dramatics. Aims and methods of organization. Fundamental principles of direction: casting, rehearsal technique, performance. Students will have actual direction of plays produced by class in Acting (Course 160). Limited to eight students.
3 units, autumn, *winter, and *summer quarters (HELVENSTON)
*Autumn, 8; winter, 9; summer, 6* M 2:05–3:05, W 2:05–4:05

**189. Special Work.**—Students who are properly qualified may enroll in this course for special work under the direction of some member of the division for credit not to exceed three units per quarter.
Spring and *summer quarters By arrangement
*Spring, 5; summer, 3*

**190. History of the Theater.**—A historical survey of the origin and development of the theater.
2 units, autumn and spring quarters (Buckingham) M 2:05–4:05, T 2:05–4:05
*Autumn, 10; spring 12*

**200c. Teachers' Equipment in Oral Reading.**—A study of the principles of expressive speech and training in reading aloud, with assignments adapted to the needs of individual members of the class.
2 units, winter quarter (Bassett) M 2:05–4:05
2 or 3 units, summer quarter (Buckingham) MW 2:05–3:30
*Winter, 19; summer, 10*

## Graduate Courses

**201. Experiments in Voice Production.**—Tests of vocalization and audition will be made with the aid of an Edison recording machine. The work aims at individual improvement in speech. Enrollment is limited to teachers of and major students in English and Public Speaking.
1 unit, spring quarter (Buckingham) Th 2:05–3:05
*Spring, 12*

**202. The Reading of Verse.**—A study of metrics, rhythms, and verse forms with particular reference to the oral reading of verse.
2 units, autumn quarter (Bassett) T 2:05–4:05
*Autumn, 11*

**203. Advanced Phonetics.**—The sounds of English with reference to standards of pronunciation in the United States.
2 units, winter quarter (Bassett) T 2:05–4:05
*Winter, 11*

**204. Reading Tests.**—Survey of the psychological tests of reading ability with practice in the use of the scales and tests of Gray, Monroe, Thorndike, and others. Primarily for teachers.
1 unit [Not given in 1930–31]

**205. Methods of Proof, Seminar.**—Papers and reports on such topics as the argumentative method and the scientific method; the scientific method in its relation to special fields, e.g., government and politics; modern fact-finding methods and technique; classical controversies.
2 to 3 units, spring and *summer quarters (Emerson) By arrangement
*Spring, 2; summer, 1*

**206. Organization of Speech Material.**—A study of the structure of certain notable speeches, e.g., those of Burke, Webster, Phillips, Lincoln, and discussion of methods of organizing material for effective presentation.
2 units, spring quarter (Bassett) T 2:05–4:05
*Spring, 5*

**207. School Repertory of Literary Drama.**—Study and working out of seldom performed plays of the best dramatists from Aeschylus to Ibsen for production by students in high schools and colleges.
2 units, autumn quarter (Buckingham) Th 2:05–4:05
*Autumn, 5*

**208. Survey of Materials for Play Production.** A consideration of plays suitable for amateur production, and of the literature dealing with

stage technique and dramatic presentation. Bibliography, assigned readings, class reports and discussions.
3 units, summer quarter (BUCKINGHAM) MWF 10
*Summer, 20*

**209. Reading and Staging Plays.**—An analytical study of dramatic structure in relation to acting and directing.
2 units, summer quarter [Not given in 1930–31]

**210. Research Course.**—Individual investigation of a special subject under the direction of some member of the Division. Problems of the Master's thesis are excluded.
Any quarter By arrangement
*Autumn, 1*

**[Teachers' Course in Oral Expression.**—See Education 217.]

## GERMANIC LANGUAGES

JAMES OWEN GRIFFIN, KARL GUSTAV RENDTORFF, Professors Emeritus
BRUNO BOEZINGER, Associate Professor Emeritus

WILLIAM ALPHA COOPER, Professor
KURT FRANZ REINHARDT, Assistant Professor
REINALD HOOPS (University of Glasgow), Acting Assistant Professor (Summer Quarter)
CLARA EBERHARD, HELENA MAY NYE, FRIEDRICH WILHELM STROTHMANN, Instructors
RAYMOND FELL LILLIE, ELIZABETH HELEN VON ROHDEN, STANLEY LOUIS SHARP, ANTHONY EUGENE SOKOL, Assistants in Instruction

The elementary and intermediate courses listed below are designed to prepare students to read German without translation, and to express ideas in simple German prose. Those who have completed three of the Courses 100, 101, 102, and 103 may take any more advanced course for which, in the judgment of the instructor in charge, they are prepared. Courses 16*a*, 16*b*, 17*a*, 17*b*, 18*a*, 18*b*, 90, and 107 are given entirely in English; Courses 221, 223, and 224, when attended by students who cannot follow class work in German, are conducted in English; the other advanced courses presuppose considerable facility in German and are conducted in German. Courses not assigned to any particular quarter, and with "by arrangement" instead of definite hours in the *Time Schedule,* will be given whenever there is sufficient demand for them.

The department accepts candidates for the degrees of Bachelor of Arts, Master of Arts, and Doctor of Philosophy, and for certification as high-school teachers. Special consideration is given to the needs of those who intend to make the teaching of German their profession.

*Graduation.*—Candidates for the degree of Bachelor of Arts in Germanic Languages are expected to take thirty units beyond Second Year German, i.e., from courses numbered 100, 101, 102, 103, 111, and higher. Courses 1, 2, 3, 21, 22, 23, or the equivalents, should be completed before admission to

the Upper Division in order to satisfy these requirements within two years, without crowding.

*Teacher's Recommendation.*—Candidates for the Teacher's Recommendation in German as a major subject are expected to take at least fifteen units of advanced work (including Courses 151 and 200) beyond the Department's requirements for the A.B. degree. The program of each student will take into account his or her particular needs. In general, some work will be expected in each of the fields of philology, literature, and culture history. Proficiency in German will be insisted upon.

Candidates for the Teacher's Recommendation in German as a minor subject are expected to complete the Department's requirements for the A.B. degree, as a minimum, and to show reasonable proficiency in German.

*Advanced Degrees.*—Candidates for the degree of Master of Arts in Germanic Languages are expected to take fifteen units in addition to the requirements for the degree of Bachelor of Arts, and Course 251.

Candidates for the degree of Doctor of Philosophy will need to devote at least three years to graduate study. The library facilities are sufficient, and the collection is being strengthened in all directions. The private library of the late Professor Hildebrand of Leipzig furnishes valuable material, particularly in the older literature and in lexicography. Good opportunities are offered also for research work in more modern literature and philology, including current literature. The files and the current numbers of the important journals are at hand.

A more detailed statement of the requirements for advanced degrees, and of the facilities for graduate study of the Germanic languages, at Stanford University, may be found in the *Announcement of Courses, 1931–32.*

*Library.*—The department maintains, in Room 112, a special equipment library including a collection of German textbooks, a model reference library for a high-school or junior college teacher, and a considerable number of the best known works of German literature. This collection of books is supplemented by an extensive collection of maps, wall pictures, and lantern slides (about 3,000), suited for use in teaching. The slides have been specially chosen to illustrate courses in cultural history (120–125) and literary history (171–183).

*Fees.*—For Courses 1, 1*a*, 2, and 3, First-Year German, a special university fee of $7.50 per quarter is charged, to which is added a syllabus fee of $0.50. Syllabus fees of $0.50 or $1.00, collected in certain other courses, are for the purpose of printing examination papers and keeping up the equipment library and lantern-slide collections.

## COURSES OF INSTRUCTION

**1. First-Year German.**—It is the object of this course to put the learner in possession of the elements of the German language. This implies: (1) a personal command of simple German, that is, the ability to understand such German, whether heard or read, and to employ the language in simple conversation, narration, and description, both orally and in writing; (2) such a ready familiarity with the elements of German grammar as is essential for the attainment of this command of the language.

5 units, autumn and *winter quarters (Eberhard, Nye, Rohden, Sharp, Sokol) (autumn) MTWThF 8, 9, 11; (winter) MTWThF 9

*Autumn, 160 (5 sections); winter, 25*

**1a. Elementary German.**—Special course for beginners, having particularly in mind requirements of other major departments, and the University requirement for the Ph.D. degree.
5 units, summer quarter (Sokol) MTWThF 11
*Summer, 19*

**2. First-Year German.**—A continuation of Course 1.
5 units, winter and *spring quarters (Eberhard, Nye, Rohden, Sharp, Sokol)
(winter) MTWThF 8, 9, 11; (spring) MTWThF 9
*Winter, 149 (5 sections); spring, 24*

**3. First-Year German.**—Besides being a continuation of Course 2, this course affords, in the autumn quarter, an opportunity for students with more than one and less than two years of high-school German to prepare themselves to take up second-year college German (Course 21) in the winter quarter.
5 units, spring and *autumn quarters (Eberhard, Nye, Rohden, Sharp, Sokol)
(spring) MTWThF 8, 9, 11; (autumn) MTWThF 9
*Autumn, 28; spring, 129 (5 sections)*

[Note.—Courses 1, 2, and 3, together, are equivalent to two years of German in the high school, and may be taken by students who have presented no units of credit in German for entrance to the University. Those who present one unit for entrance may take Courses 2 and 3.]

**16a. Second-Year Translation.**—Texts of all literary types except articles on natural science.
2 units, autumn quarter (Lillie) TTh 8
*Autumn, 10*

**16b. Second-Year Translation.**—Articles on natural science.
2 units, autumn quarter (Nye) TTh 1:05
*Autumn, 18*

**17a. Second-Year Translation.**—Continuation of 16*a*.
2 units, winter quarter (Lillie) TTh 8
*Winter, 15*

**17b. Second-Year Translation.**—Continuation of 16*b*.
2 units, winter quarter (Nye) TTh 1:05
*Winter, 7*

**18a. Second-Year Translation.**—Continuation of 17*a*.
2 units, spring quarter (Lillie) TTh 8
*Spring, 8*

**18b. Second-Year Translation.**—Continuation of 17*b*.
2 units, spring quarter (Nye) TTh 1:05
*Spring, 23*

**20. Free Reading.**—Open only to students who have had at least two of the courses numbered between 16 and 18, and between 21 and 25. Permission of the instructor necessary before registration. Thirty-six hours of reading per unit, and weekly conferences with the instructor.
1 or 2 units, each quarter (Eberhard, Nye, Sharp) By arrangement
*Autumn, 52 (2 sections); winter, 69 (3 sections); spring, 51 (2 sections)*

**21. Second-Year German.**—The aim of this course is to extend and strengthen the student's personal command of German, both oral and written. The course is taken to best advantage as a whole, but may be taken in part, either the division 21*a*, which is devoted to the reading and discussion in German of texts selected from the writings of contemporary or late nineteenth-century authors, or the division 21*b*, which affords training in composition, conversation, and practical grammar.

*21a. Second-Year Reading.*
3 units, autumn and *winter quarters (EBERHARD, NYE, SHARP) (autumn) MWF 8, 9, 10, 11; (winter) MWF 11
*Autumn, 119 (4 sections); winter, 19*

*21b. Second-Year Composition.*
2 units, autumn and *winter quarters (SHARP, SOKOL) (autumn) TTh 8, 11; (winter) TTh 11
*Autumn, 32 (2 sections); winter 8*

**22. Second-Year German.**—A continuation of Course 21.

*22a. Second-Year Reading.*
3 units, winter and *spring quarters (EBERHARD, NYE, SHARP) (winter) MWF 8, 9, 10, 11; (spring) MWF 11
*Winter, 92 (4 sections); spring, 23*

*22b. Second-Year Composition.*
2 units, winter and *spring quarters (SHARP) (winter) TTh 8, 11; (spring) TTh 10
*Winter, 28 (2 sections); spring, 5*

**23. Second-Year German.**—A continuation of Course 22.

*23a. Second-Year Reading.*
3 units, spring and *autumn quarters (EBERHARD, NYE, SHARP) (spring) MWF 8, 9, 10, 11; (autumn) MWF 11
*Autumn, 4; spring, 67 (4 sections)*

*23b. Second-Year Composition.*
2 units, autumn and *spring quarters (SHARP, SOKOL) (autumn) TTh 11; (spring) TTh 11
*Autumn, 1; spring, 13*

*23d. Second-Year Composition.*
1 unit, spring quarter (STROTHMANN) By arrangement
*Spring, 5*

[NOTE.—Second-Year German (which includes Courses 21, 22, and 23) is the equivalent of the third and fourth years of German in the high school. Students who present three units in German for entrance may take Courses 22 and 23 for credit.]

**24. Second-Year German Reading.**
3 units, summer quarter (SOKOL) MWF 8
*Summer, 7*

**25. Oral German.**—Pronunciation, recitation of memorized poetry and prose, writing from dictation, conversation. This course may be taken three quarters for credit.
2 units, autumn, winter, and spring quarters (EBERHARD) TTh 8
*Autumn, 12; winter, 11; spring, 11*

**26. Composition.**—Individual course for students not adequately prepared for Course 110: Stilübungen.
1 unit, summer quarter (SOKOL) By arrangement
*Summer, 2*

**30. Individual Reading.**
1 or 2 units, summer quarter (HOOPS, SOKOL) By arrangement
*Summer, 18*

**90. History of Germany.**—A general survey, with particular emphasis on the period since 1848.
3 units, winter quarter (REINHARDT) MWF 8
*Winter, 4*

**100. Third-Year German.**—Prerequisite: Second-Year German, or the equivalent. Reading of short stories, plays, and poems, with class exercises in German. This course is, as a rule, continued through three quarters, but may be taken for one or two quarters, by permission of the instructor.
2 units, each quarter (SOKOL, STROTHMANN) TTh 9
*Autumn, 8; winter, 9; spring, 9*

**101. Novels.**—A course in rapid reading of modern novels, with discussions in German of their subject matter and technique. Prerequisite: Second Year German or the equivalent.
3 units, autumn quarter (COOPER) MWF 9
*Autumn, 7*

**102. Dramas.**—A continuation of Course 101.
3 units, winter quarter (COOPER) MWF 9
*Winter, 10*

**103. Masterpieces.**—A continuation of Course 102.
3 units, spring quarter (COOPER) MWF 9
*Spring, 16*

**107. General Survey of German Literature.**—Lectures in English, readings from English translations.
2 units, spring quarter (REINHARDT) TTh 8
*Spring, 23*

**110. Anschauungsunterricht.**
2 units, winter quarter (SOKOL) TTh 8
*Winter, 8*

**110. Stilübungen.**—Continuation of Anschauungsunterricht.
2 units, spring and summer quarters (SOKOL, STROTHMANN) TTh 8
*Spring, 1; summer, 4*

**111. Advanced Composition.**—By composition is meant, not translation from English, but the employment in connected prose of German material either gathered from reading or specially assigned by the instructor.
2 units, autumn and winter quarters (SOKOL) TTh 1:05
*Autumn, 3; winter, 2*

**115. Die deutsche Schaubühne.**
2 or 3 units, winter and spring quarters (REINHARDT) TTh 11
*Winter, 7; spring, 8*

**116. Übung im Vortrag deutscher Dichtung.**
2 units, summer quarter (HOOPS) WF 2:05
*Summer, 3*

**120. Deutsche Landeskunde.**—Lectures in German, illustrated with lantern slides. Discussion of the different types of settlements as conditioned by the character of the landscape. Term paper in English, on subject matter.
2 units, spring quarter [Not given in 1930–31]

**121. Die deutsche Stadt.**—Genesis and morphology of the city as a social and economic organism. Lectures in German, with lantern slides.
2 units [Not given in 1930–31]

**122. Deutsche Kunst und Kultur im Mittelalter.**—Lectures in German, illustrated with lantern slides.
2 units, winter quarter (REINHARDT) TTh 8
*Winter, 5*

**123. Kunst und Kultur im Zeitalter der Renaissance.**
2 units, spring quarter (REINHARDT) TTh 2:05
*Spring, 4*

**124. Moderne deutsche Kunst.**
1 unit, spring quarter (REINHARDT) F 2:05
*Spring, 2*

**125. Oesterreich.**—Illustrated lectures in German on the country and people of Austria.
2 units, autumn quarter (SOKOL) TTh 8
*Autumn, 12*

**128. Deutsche Kulturgeschichte im Umriss.**
2 units, summer quarter (REINHARDT) WF 11
*Summer, 6*

**129. Das heutige Deutschland.**
2 units, summer quarter (Hoops) TTh 9
*Summer, 6*

**150. Directed Reading.**—Prerequisites: Second-Year German and, if possible, one or more of the Courses 100 to 104. Individual courses of reading, suited to special needs and desires. Thirty-six hours of reading per unit, and brief interviews, once a week, with the instructor.
1 or 2 units, each quarter (Cooper, Reinhardt, Strothmann) By arrangement
*Autumn, 6; winter, 7; spring, 12*

**151. Individual Composition.**—The aim of this course is to develop correct, idiomatic, and adequate expression.
1 unit, each quarter (Sokol, Strothmann) By arrangement
*Autumn, 1; winter, 2*

**152. Individual Work.**—Independent Study, with reports.
1 unit, each quarter (Cooper, Reinhardt, Strothmann) By arrangement
*Autumn, 2; spring, 4; summer, 1*

**160. Tagesereignisse in Deutschland.**—Reading of articles in German newspapers and magazines, with reports and discussions in German.
2 units, autumn, winter, and spring quarters (Reinhardt, Strothmann)
(autumn, winter) MW 1:05; (spring) MW 2:05
*Autumn, 6; winter, 5; spring, 4*

**161. Deutsche Syntax.**
2 units [Not given in 1930–31]

**162. Deutsche Etymologie.**
2 units, autumn quarter (Cooper) TTh 10
*Autumn, 6*

**163. Der deutsche Wortschatz.**—Study of words in their relation to cultural history.
2 units, winter quarter (Strothmann) TTh 10
*Winter, 4*

**164. Deutsche Wortstudien.**
2 units, spring quarter (Strothmann) TTh 10
*Spring, 7*

**167. Deutsche Sprachgeschichte.**
2 units, winter and spring quarters (Strothmann) TTh 1:05
*Winter, 4; spring, 4*

**168. Einführung in die germanische Philologie.**
2 units, autumn quarter (Strothmann) TTh 2:05
*Autumn, 4*

**171. Die Tragödie Schillers, Kleists und Hebbels.**—Study of the three main types of 19th Century tragedy.
2 units [Not given in 1930–31]

**172. Deutsche Lyrik seit Goethe.**
3 units [Not given in 1930–31]

**173. Goethe's *Dichtung und Wahrheit.***
3 units (Cooper) [Not given in 1930–31]

**174. Goethe's Lyrics.**—A study of Goethe's lyrics in relation to his life and to his conception of the poet's calling.
3 units, autumn quarter (Cooper) MWF 10
*Autumn, 9*

**175. Goethe's *Faust.***
3 units, winter and spring quarters (Cooper) MWF 10
*Winter, 6; spring, 7*

**177a. Schiller's Dramas.**
2 units, autumn quarter (Strothmann) TTh 11
*Autumn, 3*

**177b. Schiller's Poems.**
2 units [Not given in 1930–31]

**178. Heine's Works.**
2 units [Not given in 1930–31]

**181. Geschichte der deutschen Literatur bis zum 19. Jahrhundert.**
3 units, autumn quarter (STROTHMANN) MWF 8
*Autumn, 3*

**182. Geschichte der deutschen Literatur von der Romantik bis zum Naturalismus.**
3 units, winter quarter (REINHARDT) MWF 8
*Winter, 6*

**183. Geschichte der deutschen Literatur von 1870 bis zur Gegenwart.**
2 units, spring quarter (REINHARDT) MW 8
*Spring, 3*

**185. Das deutsche Drama des 19. Jahrhunderts und der Gegenwart.**
2 units, summer quarter (REINHARDT) TTh 10
*Summer, 4*

**186. Kunst und Dichtung im Zeitalter des Barock.**
2 units, summer quarter (REINHARDT) MW 9
*Summer, 5*

**187. Der deutsche Roman der Gegenwart.**
2 units, summer quarter (HOOPS) WF 10
*Summer, 2*

**195. Das deutsche Volkslied.**—Principal types studied with regard to the historical development of their meters, words, and melodies, from the Middle Ages down to the present day. Lectures illustrated with vocal and instrumental renderings.
2 units [Not given in 1930–31]

**200. German Teachers' Course.**—Subject matter, methods, books, illustrative material.
1 unit, autumn quarter (COOPER) M 2:05
*Autumn, 3*

**203. Übungen für Lehrer.**
2 units, summer quarter (HOOPS) [Not given in 1930–31]

**205. Erziehungsideale und Erziehungsprobleme im modernen Deutschland.**
1 unit, summer quarter (REINHARDT) M 2:05
*Summer, 4*

**221. Gothic.**
3 units, spring quarter (STROTHMANN) TTh 2:05
*Spring, 5*

**223. Old High German.**
3 units, winter quarter (STROTHMANN) MW 2:05
*Winter, 5*

**224. Middle High German.**
2 units, autumn quarter (STROTHMANN) MW 2:05
*Autumn, 6*

**225. Mittelhochdeutsch für Fortgeschrittene.**
2 units, summer quarter (HOOPS) TTh 11
*Summer, 4*

**231. Comparative Grammar of German and English.**
3 units [Not given in 1930–31]

**241. Seminar.**
2 units, summer quarter (Reinhardt) Th 2:05–4:05
*Summer, 7*

**251. Master's Thesis.**—The candidate reports weekly to the instructor in charge for criticism, the work extending over three quarters, as a rule.
1 to 3 units, each quarter (Cooper, Hoops, Reinhardt, Strothmann) By arrangement
*Autumn, 3; winter, 3; spring, 2; summer, 1*

## ROMANIC LANGUAGES

Oliver Martin Johnston, †Clifford Gilmore Allen, Alfred Coester, Aurelio Macedonio Espinosa, †Stanley Astredo Smith, Professors
Frederick Anderson, William Leonard Schwartz, Associate Professors
Arturo Torres-Rioseco (University of California), Acting Associate Professor (Summer Quarter)
Ernest Hall Templin, Acting Assistant Professor
Jean-Albert Bédé (Princeton University), Acting Assistant Professor (Summer Quarter)
Ida Stauf, Instructor
Stuart Cuthbertson, Acting Instructor
Joseph D. H. Donnay, Adèle Jallade, Edith Louise Kelly, Grace Knopp, Edmond Eric Masson, Trinidad de Mora, Howard True Wheeler, Mary Frances Wildman, Assistants in Instruction

The undergraduate courses in the Romanic Languages are planned so as to give students an intimate acquaintance with the modern forms of the languages spoken in the principal Neo-Latin countries. To this end systematic attention is paid to pronunciation, reading, syntax, and conversation. In the higher courses special emphasis is laid on the study of literature. In order to give students an opportunity to become familiar with the spoken idioms, the majority of the courses are conducted in the language which forms the object of study.

### REGISTRATION

First-year French and Spanish are given by competent instructors under the supervision of the department faculty, and a fee of $8 per quarter is charged. Students may receive full University credit for the following courses, as indicated: Course A2 (or B2) for students entering with *one* entrance unit in French or Spanish; Course A21 (or B21) or Course A3*a* (or B3*a*) for students with *two* entrance units; Course A22 (or B22) for students with *three* entrance units; Course A111 (or B101 or B111) for students with *four* entrance units. Students repeating work covered in the high school will receive only half-credit in the University for the courses listed above.

Students who are required to take Course A3*a* or B3*a* during the autumn quarter may begin Second-Year French or Spanish (A21 or B21) in the winter quarter. Students who complete A22 or B22 with a grade of A will be admitted to advanced courses in French or Spanish.

† Absent on leave, 1930–31.

### GRADUATION

The following work should be completed prior to admission to the Upper Division in order that the department requirements for the degree of Bachelor of Arts may be completed within two years: A1, A2, A3, or B1, B2, B3, and A21, A22, A23, or B21, B22, B23, or the equivalents. (Courses A1, A2, A3, and B1, B2, B3 are equivalent to the first two years of high-school work in French and Spanish, respectively. Courses A21, A22, A23, and B21, B22, B23 are equivalent to the third and fourth years of high-school work in French and Spanish, respectively.)

Either French or Spanish may be selected as a major subject. In addition to the elementary course, which does not count as a part of the requirement, majors in French or Spanish must complete the following courses for the degree of Bachelor of Arts:

1. Second-year course (15 units);
2. Advanced Composition and Conversation (9 units);
3. Six courses in literature or philology in the major subject (2-unit courses counting as half courses).

These six courses must include an outline course in the literature of the major subject (A140 for French majors and B140 for Spanish majors, or their equivalent). It is desirable that the outline course precede the other literary courses in the subject.

Major students must register each quarter for at least one course in the major subject. This provision is intended to prevent students from crowding major requirements into certain quarters and from registering as French or Spanish majors in other quarters without taking any work in the major subject.

The total number of units required for the degree of Bachelor of Arts will be approximately 43 or 44 units, exclusive of the elementary course.

### THE TEACHER'S RECOMMENDATION

The department also accepts candidates for certification as high-school teachers of French and Spanish in California and provides courses to meet the special needs of such candidates. The requirements for the Teacher's Recommendation are the same as for the degree of Bachelor of Arts with the exception of the fact that the following courses must be included: A110 and A190 for majors in French; B110 and B200 for majors in Spanish.

### REQUIREMENTS FOR ADVANCED DEGREES

#### Master of Arts

Candidates for the Master's degree in the Department of Romanic Languages must present a thesis prepared under the direction of a member of the department. They must also pass a written examination, drawn up and passed upon by a committee of the department, consisting of two parts: (1) on the history of French or Spanish literature, 3 hours; (2) on the geography and history of France or Spain, to be written in French or Spanish, 2 hours.

In general, a knowledge of Latin and German is a necessary preparation for the graduate courses offered.

### Doctor of Philosophy

*A. For All Candidates*

1. Acquaintance with the principal works on Romance philology and literature; the noteworthy histories of French or Spanish literature; editions of great writers, etc.

2. The essentials of Romance philology; Vulgar Latin; characteristics of the principal Romance languages; history of the French or Spanish language; Romance versification.

3. History of French or Spanish literature, and of the principal literary movements common to all European literatures.

4. A general knowledge of the history and geography of France or Spain.

5. A thorough knowledge of the French or Spanish language and a reading knowledge of Latin, Italian, and German.

*B. For Candidates Specializing in Philology*

A written examination on phonetics and general linguistics as illustrated in the history of the French or Spanish language, and on the origins of Romance literature.

*C. For Candidates Specializing in Literature*

A written examination on the general history of French or Spanish literature, and a detailed examination on certain literary periods and authors.

The requirements outlined above may be fulfilled by following closely the program of studies outlined below, which represents in general the detailed departmental requirements.

*1. With French or Spanish as a Major.*—(*a*) The completion of about thirty quarter courses of strictly graduate character or their equivalent above the Bachelor's degree.

(*b*) At least fifteen of these courses, or about one-half of the entire program of courses presented for the degree, should be done in French or Spanish.

(*c*) At least five courses or their equivalent must be taken in the field of general Romance philology and literature, but two of these courses, Phonetics and Vulgar Latin, are required.

(*d*) The ten remaining courses or their equivalent may be taken in one or two related fields or departments. For the present candidates majoring in French or Spanish are advised to select their minor or minors in Spanish, Latin, Italian, English, German, or French, Latin, Italian, English, German, respectively.

(*e*) The dissertation required by the department as well as by the general University regulations in partial fulfillment of the requirements for the degree of Doctor of Philosophy is not included in any of the above requirements and is not to be counted as a course or courses.

*2. With French or Spanish as a Minor.*—The completion of about ten courses or their equivalent in French or Spanish philology and literature.

Candidates offering either French or Spanish as a minor will be given a written examination by the department previous to the oral examination.

### SUMMER QUARTER

The announcement of courses for the summer quarter includes only those regularly scheduled in the department curriculum. The complete program, including courses offered by visiting professors, will be published in the *Summer Quarter Bulletin* to be issued in February, 1931.

## A. FRENCH

### I. Elementary and Intermediate Courses

**A1. Elementary French.**—Training in pronunciation by means of phonetic symbols. Oral work. The elements of French grammar; the regular verb and the verbs *avoir* and *être;* Johnston and Elmore, *A French Grammar for High Schools and Colleges,* 23 lessons. Reading from Pumpelly, *A French Reader for Beginners, Elementary French Reader.*

5 units, autumn, *winter, and *summer quarters (Stauf, Donnay, Wildman, Masson) MTWThF 8, 9, 11

*Autumn, 82 (4 sections); winter, 21; summer, 12*

**A2. Elementary French** (continued).—Oral work continued. Study of the irregular verbs. Johnston and Elmore, *A French Grammar for High Schools and Colleges,* 23 lessons. Reading from Pumpelly, *A French Reader for Beginners.* Prerequisite: A1, or one year of high-school French. Students who complete Course A2 in the spring quarter may enter Course A3*a* in the autumn quarter, and omit Course A3.

5 units, winter and *spring quarters (Stauf, Donnay, Wildman) MTWThF 8, 9, 11

*Winter, 64 (3 sections); spring, 16*

**A3. Elementary French** (continued).—Thorough review of grammar. Oral work. Reading: About, *Le Roi des Montagnes.* Prerequisite: A2, or equivalent.

5 units, spring quarter (Stauf, Donnay, Wildman) MTWThF 8, 9, 11

*Spring, 54 (3 sections)*

**A3a. Elementary French, Special Course.**—Grammar and Composition. Johnston and Elmore, *A French Grammar for High Schools and Colleges.* Intended for three classes of students: (1) for those who are credited with one year and a half of high-school French; (2) for those who are credited with two units of high-school French, but whose preparation is insufficient; (3) for those who complete Course A2 in the spring quarter.

3 units, autumn quarter (Wildman) TThS 9

*Autumn, 27*

**A21. Second-Year French.**—Grammatical review, Composition, Reading. Texts: Ogden and Webster, *Thirty Lessons on French Idioms;* France, *Le Crime de Sylvestre Bonnard;* Pailleron, *Le Monde où l'on s'ennuie.* Course conducted as far as possible in French. Prerequisite: A3, or two years of high-school French.

5 units, autumn and *winter quarters (Schwartz, Anderson, Cuthbertson, Stauf) MTWThF 9, 10

*Autumn, 104 (4 sections); winter, 19*

**A22. Second-Year French** (continued).—Grammar and Composition, Reading: Mansion, *Extracts for French Composition;* Curel, *Le Repas du lion;* Balzac, *Le Curé de Tours.* Conducted as far as possible in French. Prerequisite: A21, or three years of high-school French.

5 units, winter and *spring quarters (Schwartz, Cuthbertson, Stauf) MTWThF, 9, 10

*Winter, 75 (3 sections); spring, 18*

**A23. Second-Year French** (continued).—Mansion, *French Composition;* Prévost, *Manon Lescaut;* La Fontaine, *Cent Fables.* Conducted in French. Prerequisite: A22, or equivalent.

5 units, spring quarter (Schwartz, Cuthbertson, Anderson) MTWThF 9, 10

*Spring, 123 (3 sections)*

**A26. French Scientific Reading.** Intended for engineers. Daniels, *French Scientific Reader.* Prerequisite: A3.

3 units, autumn quarter (Donnay) TThS 11

*Autumn, 18*

**A27. French Scientific Reading** (continued).
3 units, winter quarter (Donnay) TThS 11
*Winter, 26*

**A28. French Scientific Reading** (continued).—Greenfield and Babson, *Industrial and Scientific French.*
3 units, spring quarter (Donnay) TThS 11
*Spring, 26*

**A30. Directed Reading.**—Prerequisite: A23. Readings and one conference period a week for oral reports. Enrollment limited; may not be repeated for credit.
1 or 2 units per quarter (Schwartz) T 2:05–3:05; W 2:05–3:05
*Autumn, 30 (2 sections); winter, 28 (2 sections); spring, 17*

**A40. French Conversation.**—Texts illustrating French life are memorized to facilitate conversation in correct French. Prerequisite: A21, or equivalent.
2 units (Schwartz) [Not given in 1930–31]

**A60. Intermediate French Composition and Conversation.**—Prerequisite: A21, or equivalent.
3 units, summer quarter (Jallade) MWF 8
*Summer, 10*

## II. Advanced and Graduate Courses

**A101. Commercial French.**—Letter-writing and introduction to commercial vocabulary. Malakis, *Le Français du commerce;* Fish, *French Commercial Correspondence.* Prerequisite: A23, or equivalent.
3 units (Schwartz) [Not given in 1930–31]

**A110. French Pronunciation.**—Lectures and practical exercises in the elements of French pronunciation. This course should be taken by French majors in the first year. Prerequisite: A23, or equivalent.
2 units, spring quarter (Schwartz) TTh 1:05–2:05
*Spring, 21*

**A111. Third-Year French Composition and Conversation.** — Composition and dictation. Coindreau and Lowe, *French Composition Book.* Conducted in French. Prerequisite: A23, or four years of high-school French.
3 units, autumn quarter (Schwartz, Cuthbertson) MWF 9, 11
*Autumn, 53*

**A112. Third-Year French Composition** (continued).—Coindreau and Lowe, *French Composition Book.* Prerequisite: A111, or equivalent.
3 units, winter quarter (Schwartz, Cuthbertson) MWF 8, 11
*Winter, 39 (2 sections)*

**A113. Third-Year French Conversation** (continued).—Bertenshaw and Janau, *French Composition.* Prerequisite: A112, or equivalent.
3 units, spring quarter (Cuthbertson) MWF 8, 11
*Spring, 33 (2 sections)*

**A121. Fourth-Year French Composition.** — Translation of connected English prose into French. Original composition. Dictation. Prerequisite: A113.
3 units, spring and *summer quarters (Anderson, Bédé) MWF 9
*Spring, 7; summer, 10*

**A122. Fourth-Year French Composition** (continued).
3 units (Smith) [Not given in 1930–31]

**A123. Fourth-Year French Composition** (continued).
3 units (Smith) [Not given in 1930–31]

**A130. French Classics.**—Reading in class of masterpieces of French literature. Prerequisite: A23, or equivalent.
4 units (SCHWARTZ) [Not given in 1930-31]

**A131. Renan.**—Reading and interpretation of the *Souvenirs d'Enfance et de Jeunesse* and selections from his other works.
2 units (ANDERSON) [Not given in 1930–31]

**A132. Rousseau.**—Reading and interpretation of selections from Jean Jacques Rousseau.
2 units (ANDERSON) [Not given in 1930–31]

**A133. Mme de Staël.**—*De l'Allemagne,* reading and interpretation.
2 units (ANDERSON) [Not given in 1930–31]

**A134. Taine.**—Reading and discussion of V. Giraud's *Pages Choisies de Taine.*
2 units, autumn quarter (ANDERSON) TTh 9
*Autumn, 14*

**A135. Classical French Moralists.**—Reading and interpretation of selections from Pascal, La Rochefoucauld, La Bruyère, and Vauvenargues.
2 units, winter quarter (ANDERSON) [Not given in 1930–31]

**A136. Voltaire.**
3 units, spring quarter (ANDERSON) TTh 9
*Spring, 38*

**A137. French Civilization.**—The Foundations and the Middle Ages. Course conducted in French. Prerequisites: A23, or its equivalent, and a course in European History.
2 units, autumn quarter (GUÉRARD) TTh 8
*Autumn, 19*

**A138. French Civilization.**—The Classical Age. Course conducted in French. Prerequisites: A23, or its equivalent, and a course in European History.
2 units, winter quarter (GUÉRARD) TTh 8
*Winter, 7*

**A139a. French Civilization.**—The Nineteenth Century. Course conducted in French. Prerequisites: A23, or its equivalent, and a course in European History.
2 units, spring quarter (GUÉRARD) TTh 8
*Spring, 13*

**A139b. French Civilization.**—The Twentieth Century. Course conducted in French. Prerequisites: A23, or its equivalent, and a course in European History.
2 units (GUÉRARD) [Not given in 1930–31]

**A140a. Synopsis of French Literature.**—Lectures in French on Early French Literature and on the Sixteenth Century. Texts: Chinard, *Petite Histoire des lettres françaises;* Anderson, *Illustrations of Early French Literature;* Bush and Young, *Sixteenth Century French Anthology.*
2 units (ANDERSON) [Not given in 1930–31]

**A140b. Synopsis of French Literature** (continued).—The Classic Age. Chinard, *Petite Histoire des lettres françaises;* Vreeland and Michaud's *French Anthology.*
2 units (ANDERSON) [Not given in 1930–31]

**A140c. Synopsis of French Literature** (continued).—The Romantic Movement, the Nineteenth Century. Same texts as in A140*b*.
2 units (ANDERSON) [Not given in 1930–31]

**A141. The Modern French Drama.**—Lectures in French. Outside reading, discussions, and reports. Prerequisite: A23, or equivalent.
3 units (SMITH) [Not given in 1930–31]

**A142. The Modern French Novel.**—Lectures in French on the history of the novel in France since 1800. Extensive readings. Prerequisite: A23, or equivalent.
3 to 4 units, spring and summer quarters (SCHWARTZ, BÉDÉ) MWF 10, 11
*Spring, 19; summer, 16*

**A143. French Lyric Poetry.**—Course conducted in French. Preliminary study of medieval poetical forms, leading to extensive reading in class of nineteenth-century poets. Intended to familiarize students with the best-known masterpieces. Textbooks: *Oxford Book of French Verse,* Henning's *French Lyrics of the Nineteenth Century.* Prerequisite: A23, or equivalent.
4 units, winter quarter (SCHWARTZ) MTWTh 1:05–2:05
*Winter, 9*

**A144. Explication de Textes.**—Les doctrines littéraires du romantisme en France: étude méthodique des textes les plus significatifs.
3 units, summer quarter (BÉDÉ) MWF 11
*Summer, 4*

**A145. French Historians.**—Lectures on French Historians of the nineteenth century. Reading of selections. Conducted in French. Prerequisite: A23, or its equivalent.
3 units, winter quarter (ANDERSON) TTh 9
*Winter, 10*

**A150. Hugo.**—His period, life, and works. Prerequisite: A23, or the equivalent.
2 units (SCHWARTZ) [Not given in 1930–31]

**A151. Molière.**—The complete works are read, with special attention to the characters in the plays. Readings and reports. Prerequisite: A23, or equivalent.
4 units, autumn quarter (SCHWARTZ) TWThF 10
*Autumn, 20*

**A152. Literary Criticism.**—Lectures on the relation between philosophy and literature.
3 units (ANDERSON) [Not given in 1930–31]

**A161. French Literature in the Seventeenth Century** (exclusive of the drama).—Lectures in French. Reading and interpretation of representative texts. Outside reading and reports. Prerequisite: A23, or the equivalent.
3 units, autumn quarter (ANDERSON) MWF 9
*Autumn, 24*

**A162. French Literature in the Eighteenth Century.**—A study of the main ideas and tendencies of the period as illustrated by the lives and works of its most important authors. Outside reading and reports. Conducted in French. Prerequisite: A23, or the equivalent.
3 units, winter quarter (ANDERSON) MWF 9
*Winter, 20*

**A163. The Romantic Movement in France.**—A study of the main features of romanticism and of the most important representatives of the French romantic movement. Lectures in French. Outside reading. Prerequisite: A140, or equivalent.
3 units (ANDERSON) [Not given in 1930–31]

**A164. Sixteenth Century.** Reading and interpretation of representative selections. Lectures and reports at the discretion of the instructor.
3 units, summer quarter (ANDERSON) MWF 11
*Summer, 14*

**A165. La littérature française d'hier et d'aujourd'hui.** — Lectures in French, readings and reports. Lalou, *Histoire de la littérature française contemporaine.* Prerequisite: A111 or A140.
2 units (SCHWARTZ) [Not given in 1930–31]

**A170. Corneille.**
3 units (JOHNSTON) [Not given in 1930–31]

**A171. French Tragedy.**—Lectures on the art of French tragedy, with interpretation and discussion of selected plays. Outside reading and reports. Prerequisite: A140, or equivalent.
3 units, spring quarter (JOHNSTON) T 2:05–4:05
*Spring, 13*

**A190. Modern French Syntax.**—Review of French grammar with lectures and discussion. Modern usage in the light of its psychological and historical development. This course is designed to be of special use to teachers.
2 units, winter and *summer quarters (JOHNSTON, ANDERSON) TTh 2:05–3:30
*Winter, 10; summer, 12*

**A199. Individual Work.**—Properly qualified students may, under the guidance of a member of the staff, pursue studies not covered by the courses listed. The subject and units are to be determined in consultation with the instructor.
*Autumn, 3; winter, 3; spring, 1; summer, 1*

[**Teachers' Course in French.**—See Education 209.]

## III. PRIMARILY FOR GRADUATES

**A201. Introduction to the Study of Old French.**—Reading and interpretation of Old French texts selected from Bartsch-Wiese, *Chrestomathie de l'Ancien Français,* with a study of Old French Phonology and Morphology.
3 units, autumn and summer quarters (JOHNSTON, ANDERSON) MWF 2:05
*Autumn, 10; summer, 13*

**A202. French Historical Grammar.**—Lectures on Old French Phonology and Morphology.
3 units, spring quarter (JOHNSTON) MWTh 2:05–3:05
*Spring, 8*

**A203. French Historical Syntax.**—The most important phases of modern French syntax are studied from a historical point of view. This course is intended primarily for teachers.
3 units (JOHNSTON) [Not given in 1930–31]

**A204. Old French Literature.**—French literature from the beginnings to the fifteenth century, with emphasis on the literary and social traits.
3 units (JOHNSTON) [Not given in 1930–31]

**A205. French Arthurian Romances.**—Lectures on the romances of the Round Table, the legend of the Holy Grail, and the legend of Tristan and Iseult. Outside reading and reports.
3 units (JOHNSTON) [Not given in 1930–31]

**A240. Graduate Thesis.**
3 to 5 units per quarter

**A250. French Seminary.**—*Floire et Blancheflor.*
2 units (JOHNSTON) [Not given in 1930–31]

**A251. French Seminary.**—The Old French Epic.
3 units (JOHNSTON) [Not given in 1930–31]

## B. SPANISH

### I. Elementary and Intermediate Courses

**B1. Elementary Spanish.**—The elements of pronunciation, grammar, reading, and conversation. Texts: Espinosa and Allen, *Beginning Spanish,* Lessons I–XXV; Navarro-Espinosa, *A Primer of Spanish Pronunciation,* pages 1–74.

5 units, autumn, *winter, and *summer quarters (Wheeler, de Mora) MTWThF 9, 10, 11
*Autumn, 67 (2 sections); winter, 22; summer, 10*

**B2. Elementary Spanish** (continued).—Texts: Espinosa and Allen, *Beginning Spanish,* Lessons XXVI–XLVII; Navarro-Espinosa, *A Primer of Spanish Pronunciation,* pages 75-113; Espinosa, *Elementary Spanish Reader,* Lessons XV–XXXIII. Students who complete Course B2 in the spring quarter may enter Course B3*a* in the autumn quarter and omit Course B3.

5 units, winter and *spring quarters (Wheeler) MTWThF 9, 11; MWThFS 10
*Winter, 58 (2 sections); spring, 17*

**B3. Elementary Spanish** (continued).—Texts: Espinosa and Allen, *Beginning Spanish,* Lessons XLVIII–LXVIII; Espinosa, *Lecciones de literatura española; Cuentos, romances y cantares.*

5 units, spring quarter (Wheeler) MTWThF 9, 11
*Spring, 50 (2 sections)*

**B3a. Elementary Spanish, Special Course.**—Grammar and Composition. A rapid review of Espinosa and Allen, *Beginning Spanish,* Lessons VII–LX. Intended for three classes of students: (1) for those who are credited with one year and a half of high-school Spanish; (2) for those who are credited with two units of high-school Spanish, but whose preparation is insufficient; (3) for those who complete Course B2 in the spring quarter.

3 units, autumn quarter (Knopp) MWF 9
*Autumn, 34*

**B21. Second-Year Spanish.**—Review of grammar, with abundant practice in conversation and composition. Reading aloud in Spanish, with careful drill in pronunciation. Reading and interpretation of Spanish texts, with a minimum of translation. Conversation in Spanish based on the texts read. Bimonthly tests in translation and written reproduction of Spanish texts or short stories. Conducted mainly in Spanish.

Composition and conversation (TTh). Text: Espinosa-Allen, *Elementary Spanish Grammar,* Lessons XV–XLIX.

Reading, pronunciation, and conversation (MWF). Texts: Benavente, *El príncipe que todo lo aprendió en los libros;* Santiván, *La Hechizada.*

5 units, autumn and *winter quarters (Coester, Knopp) MTWThF 9, 11
*Autumn, 49 (2 sections); winter, 26*

**B22. Second-Year Spanish** (continued).—Composition and conversation (TTh). Texts: Espinosa, *Elementary Spanish Composition and Conversation.* For grammar review and reference, Espinosa-Allen, *Elementary Spanish Grammar.* Original exercises in Spanish composition. Final examinations on all regular and irregular verbs and the use of the subjunctive.

Reading, pronunciation, and conversation (MWF). Texts: Martínez Sierra, *Teatro de Ensueño;* Pérez Lugín, *La Casa de la Troya.*

5 units, winter and *spring quarters (Coester, Templin, Knopp) MTWThF 9, 11
*Winter, 27 (2 sections); spring, 19*

**B23. Second-Year Spanish** (continued).—Composition and conversation (TTh). Oral drill in conversation and the mastery of a correct pronuncia-

tion. Short stories, and original compositions. Advanced Spanish grammar. Parker and Ríoseco, *Spanish Grammar and Composition.*

Reading and interpretation of Spanish texts (MWF). Texts: Martínez Sierra, *Canción de Cuna;* Coester, *Cuentos de la América Española.*

5 units, spring quarter (COESTER, TEMPLIN) MTWThF 9, 11
*Spring, 39 (2 sections)*

**B26. Spanish Scientific Reading.**—Intended for engineers. Prerequisite: B3.

3 units, autumn quarter (KELLY) TThS 11
*Autumn, 9*

**B27. Spanish Scientific Reading** (continued).

3 units, winter quarter (KELLY) TThS 11
*Winter, 14*

**B28. Spanish Scientific Reading** (continued).

3 units, spring quarter (KELLY) TThS 11
*Spring, 11*

**B30. Directed Reading.**—Prerequisite: B23. Readings and one conference period a week for oral reports. Enrollment limited; may not be repeated for credit.

1 or 2 units per quarter (WHEELER, KNOPP) T 1:05, W 1:05
*Autumn, 8; winter, 12; spring, 12*

**B40. Spanish Conversation.**—Easy Spanish stories and exercises. Prerequisite: B3, or equivalent.

3 units (ESPINOSA) [Not given in 1930–31]

**B60. Intermediate Spanish Conversation and Composition.**

3 units, summer quarter (DE MORA) MWF 1:05
*Summer, 9*

## II. Advanced and Graduate Courses

**B101. Commercial Spanish.**—Review of grammar and introduction to commercial vocabulary. Prerequisite: B23.

3 units (COESTER) [Not given in 1930–31]

**B102. Commercial Spanish.**—Letter-writing and introduction to commercial practice. Prerequisite: B101.

3 units (COESTER) [Not given in 1930–31]

**B103. Commercial Spanish.**—Letter-writing (continued). Study of commercial documents. Writing of advertisements and circular letters. Prerequisite: B102 or equivalent.

3 units (COESTER) [Not given in 1930–31]

**B110. Spanish Pronunciation.**—Lectures and practical exercises in the elements of Spanish pronunciation. This course should be taken by Spanish majors in the first year.

2 units, winter quarter (ESPINOSA) TTh 10
*Winter, 15*

**B111. Advanced Spanish Composition and Conversation.**—Review of grammar, with reading and interpretation of literary texts. Oral and written reproduction of short stories and literary material. Original exercises in composition. Prerequisites: Courses B21, B22, B23.

3 units, autumn quarter (ESPINOSA) MWF 9, 11
*Autumn, 36 (2 sections)*

**B112. Advanced Spanish Composition and Conversation** (continued).—Prerequisite: B111.

3 units, winter quarter (ESPINOSA) MWF 9, 11
*Winter, 26 (2 sections)*

**B113. Advanced Spanish Composition and Conversation** (continued).—Translation into Spanish of select English prose. Prerequisite: B112.
3 units, spring quarter (TEMPLIN, ESPINOSA) MWF 9, 11
3 units, *summer quarter (DEMORA) By arrangement
*Spring, 25 (2 sections); summer, 1*

**B120. La actualidad en el mundo español.**
3 units, spring quarter (ESPINOSA) [Not given in 1930–31]

**B121. Curso de composición y estilo.**—En este curso se estudian algunas obras literarias en prosa para modelos de estilo. Composiciones originales cada semana. Gramática de referencia: Bello-Cuervo, *Gramática de la Lengua Castellana.* Prerequisite: B113.
3 units, summer quarter (RIOSECO) MWF 11
*Summer, 7*

**B122. Curso de composición y estilo** (*continuación*).
3 units (ESPINOSA) [Not given in 1930–31]

**B123. Curso de composición y estilo** (*continuación*).
3 units (ESPINOSA) [Not given in 1930–31]

**B130. Spanish Classics.**—A study of the principal authors of the classical period. Representative texts are read of Cervantes, Lope de Vega, Calderón, Alarcón, Tirso de Molina, as well as selections from Ford's *A Spanish Anthology.* Open to students who have completed Courses B21, B22, B23, or their equivalents.
4 units, winter and *summer quarters (TEMPLIN) MTWF 9
*Winter, 9; summer, 3*

**B138. Modern Spanish Dramatists.**—A study of Galdós, Benavente, Martínez Sierra, and others. Lectures in English with assigned readings in English or Spanish. Open to juniors and seniors in all departments.
2 units (ESPINOSA) [Not given in 1930–31]

**B140. Spanish Literature.**—Outline course. Fitzmaurice-Kelly, *Historia de la literatura española.* Lectures and recitations. Prerequisite: B130.
3, 4, or 5 units, winter and *summer quarters (TEMPLIN) MWF 8, 2:05
*Winter, 8; summer, 5*

**B141. Teatro Español Contemporáneo.**—(*a*) Breve resumen de la historia del teatro español en el siglo XIX: Rivas, Gutiérrez, Zorilla, Bretón de los Herreros, Ayala, Echegaray. (*b*) Estudio de los dramáticos contemporáneos, con atención especial a Galdós, Jacinto Benavente, los Quinteros, Eduardo Marquina y Martínez Sierra. Prerequisites: B21, B22, B23, or their equivalents.
3 or 5 units (ESPINOSA) [Not given in 1930–31]

**B142. Modern Spanish Novel.**—A study of the modern Spanish novel and its relation to the development of the novel in France and other European countries. Lectures and collateral readings. Prerequisites: B21, B22, B23, or their equivalents.
3 to 5 units (ALLEN) [Not given in 1930–31]

**B143. Early Spanish Lyric Poetry.**—A study of the various schools of lyric poets, as the Galician, the Italian, the National, etc. Prerequisite: B130.
3 units (ALLEN) [Not given in 1930–31]

**B144. Modern Spanish Lyrics.**—Prerequisites: B21, B22, B23, or their equivalents.
2 units (ALLEN) [Not given in 1930–31]

**B146. Literatura española contemporánea.**—Historia de la literatura española desde 1898 hasta el día de hoy, particularmente la novela y el teatro. Prerequisite: B23.
3 units, spring and summer quarters (Templin, Rioseco) MWF 8, 9
*Spring, 13; summer, 9*

**B153. Spanish-American Literature.**—General outline. The writings of Spanish Americans are studied from the point of view of the nationality of the writers and as the product of differing political, social, and geographic conditions. Prerequisite: B23.
3 units, autumn quarter (Coester) MWF 2:05–3:05
*Autumn, 13*

**B154. Argentine Literature.**—The aim of this course is to acquaint the student with the history and mental characteristics of the Argentines through the medium of their own literary productions. Prerequisite: B23.
3 units, winter quarter (Coester) MWF 1:05
*Winter, 8*

**B155. The Modernista Movement in America and Spain.**—Rubén Darío, Gutiérrez Nájera, Silva, Chocano, and their influence on Spanish lyric poets since 1898. Prerequisite: B111, or equivalent.
3 units, spring quarter (Coester) MWF 2:05–3:05
*Spring, 4*

**B156. Hispanic American Life and Literature.**—Open to majors in any department. Knowledge of Spanish not required.
4 units (Coester) [Not given in 1930–31]

**B162. Spanish Literature in the Eighteenth Century.**
3 units (Allen) [Not given in 1930–31]

**B188. Fonética Española.**—Conferencias y ejercicios prácticos. Navarro Tomás, *Manual de Pronunciación Española.*
2 units (Espinosa) [Not given in 1930–31]

**B199. Individual Work.**—Properly qualified students may, under the guidance of a member of the staff, pursue studies not covered by the courses listed. The subjects and units are to be determined in consultation with the instructor.
*Autumn, 6; winter, 3; spring, 3*

**B200. Problems of Teaching Spanish.**—A consideration of the important questions of Spanish pronunciation, grammar, reading, and literary interpretations, together with a discussion of the general questions of methods of teaching as applied to the teaching of elementary and advanced Spanish. Pedagogical bibliography and school texts. Practice teaching.
2 to 3 units, autumn and *spring quarters (Espinosa, Templin) TTh 11, MWF 9
*Autumn, 2; spring, 7*

[**Teachers' Course in Spanish.**—See Education 222.]

## III. Primarily for Graduates

**B201. Introduction to the Study of Old Spanish.**—Lectures on Old Spanish Phonology and Morphology, with linguistic exercises based on *El Cantar de mío Cid.* Ford, *Old Spanish Readings.*
3 units, winter quarter (Espinosa) MWF 10
*Winter, 4*

**B202. Spanish Historical Grammar.**—Lectures and study of Old Spanish texts.
3 units, spring quarter (Espinosa) MWF 10
*Spring, 5*

**B204. Old Spanish Literature.**—Spanish literature from the earliest times to the beginning of the fifteenth century. Lectures, reading of texts, and assigned topics.
3 units (ALLEN) [Not given in 1930–31]

**B210. El Romanticismo en España y el Movimiento Modernista en la América Española.**—Conferencias y estudios especiales.
3 units, summer quarter (RIOSECO) MWF 10
*Summer, 10*

**B220. Cervantes, *Don Quijote*.**—Lectura e interpretación del *Quijote* con investigaciones especiales. Texto: Rodríguez Marín, ed. de *Clásicos Castellanos*.
3 units, winter quarter (ESPINOSA) [Not given in 1930–31]

**B240. Graduate Thesis.**
3 to 5 units per quarter
*Spring, 1*

**B241. Origins of Spanish Drama.**—A history of the drama from the earliest times to its full development with Lope de Vega. Lectures and collateral reading.
2 units (ALLEN) [Not given in 1930–31]

**B251. Calderón.**—Lectures and assigned topics.
2 units, autumn quarter (ALLEN) [Not given in 1930–31]

**B252. Lope de Vega.**—Lectures and assigned topics.
3 units, summer quarter (TEMPLIN) MWF 3:05
*Summer, 8*

**B253. The Classical Dramatists.**—Tirso de Molina, Ruiz de Alarcón, Rojas Zorilla, and Moreto.
3 units (ALLEN) [Not given in 1930–31]

**B254. Cervantes.**—Lectures and assigned topics.
3 units (ALLEN) [Not given in 1930–31]

**B257. Seminary in Spanish-American Literature.**—Lectures and assigned topics. Prerequisite: B153 or equivalent.
3 units, winter quarter (COESTER) T 1:05–3:05
*Winter, 3*

**B260. Seminary in Spanish Literature.**—History of Spanish epic poetry with special attention to the Romancero. Lectures and investigations on special topics.
3 to 5 units, autumn quarter (ESPINOSA) MWF 10
*Autumn, 11*

## C. ITALIAN

### I. ELEMENTARY AND INTERMEDIATE COURSES

**C1. Elementary Italian.**—Wilkins, *First Italian Book; Farina, Fra lc corde di un contrabbasso.*
5 units, autumn quarter (STAUF) MTWThF 10
*Autumn, 14*

**C2. Elementary Italian** (continued). Grandgent's *Italian Grammar.* Conversation. Wilkins and Marinoni, *L'Italia.* Goggio, *Due Commedie Moderne.* Prerequisite: C1, or equivalent.
5 units, winter quarter (STAUF) MTWThF 10
*Winter, 12*

**C3. Elementary Italian** (continued).—Review of grammar. Composition and conversation. Goldoni, *La Locandiera.* Manzoni, *I Promessi Sposi* (edit. Geddes and Wilkins). Prerequisite: C2, or equivalent.
5 units, spring quarter (STAUF) MTWThF 10
*Spring, 11*

**C21. Second-Year Italian.**—Review of grammar. Composition and conversation. Reading of selected prose and poetry of the nineteenth and twentieth centuries, with a minimum of translation and particular attention to pronunciation. Collateral reading and reports. Prerequisite: C3, or equivalent.
3 units, autumn quarter (SMITH) [Not given in 1930–31]

**C22. Second-Year Italian** (continued).—Prerequisite: C21, or equivalent.
3 units, winter quarter (SMITH) [Not given in 1930–31]

**C23. Second-Year Italian** (continued).—Prerequisite: C22, or equivalent.
3 units, spring quarter (SMITH) [Not given in 1930–31]

## II. ADVANCED AND GRADUATE COURSES

**C111. Third-Year Italian Composition.**—Translation of connected English prose into Italian. Original composition. Conducted in Italian. Prerequisite: C23, or four years of high-school Italian.
3 units (Smith) [Not given in 1930–31]

**C112. Third-Year Italian Composition** (continued).
3 units (Smith) [Not given in 1930–31]

**C140. Lectures on Italian Literature (in English).**—Lectures on the principal Italian writers. Reading of their works in translation. Added credit is given to students who do their reading in Italian.
2 to 4 units (ANDERSON) [Not given in 1930–31]

**C150. Dante and the *Divine Comedy* (in English).**—Reading and interpretation of the *Divine Comedy* (in translation), lectures on Dante and the *Divine Comedy,* and the principal problems of medieval life and thought reflected in the poem. Outside reading and reports. Open to juniors and seniors in all departments.
2 units (JOHNSTON) [Not given in 1930–31]

**C151. Advanced Italian.**—Dante, *La Divina Commedia.* Study and interpretation of the text; discussion of the literary problems of the poem.
3 units, autumn quarter (JOHNSTON) MWF 2:05–3:05
*Autumn, 4*

**C152. Advanced Italian** (continued).
3 units, winter quarter (JOHNSTON) MWF 2:05–3:05
*Winter, 4*

**C153. Advanced Italian** (continued).
3 units (JOHNSTON) MWF 2:05–3:05
*Spring, 1*

**C170. Italian Classics of the Thirteenth and Fourteenth Centuries** (exclusive of the *Divine Comedy*).—Reading and interpretation of representative selections.
3 units (SMITH) [Not given in 1930–31]

**C171. Italian Classics of the Thirteenth and Fourteenth Centuries** (continued).
3 units (SMITH) [Not given in 1930–31]

**C172. Italian Classics of the Fifteenth and Sixteenth Centuries.**—Reading and interpretation of representative selections.
3 units (SMITH) [Not given in 1930–31]

**C173. Italian Classics of the Fifteenth and Sixteenth Centuries** (continued).
3 units (SMITH) [Not given in 1930–31]

**C199. Individual Work.**—Properly qualified students may, under the guidance of a member of the staff, pursue studies not covered by the courses listed. The subjects and units are to be determined in consultation with the instructor.

### D. PORTUGUESE

**D1. Elementary Portuguese.**—Drill on pronunciation. Elements of grammar. Reading of easy texts.
5 units, autumn quarter [Not given in 1930–31]

**D2. Elementary Portuguese** (continued).—Grammar. Composition. Conversation. Reading. Prerequisite: D1, or equivalent.
5 units, winter quarter [Not given in 1930–31]

**D3. Elementary Portuguese** (continued).—Prerequisite: D2, or equivalent.
5 units, spring quarter [Not given in 1930–31]

### E. GENERAL ROMANCE PHILOLOGY

PRIMARILY FOR GRADUATES

**E201. Phonetics and General Linguistics.**—Lectures on phonetics and the philosophy of grammar, the illustrations being taken chiefly from the history of Latin and Romanic languages.
4 units (ANDERSON) [Not given in 1930–31]

**E202. The Romantic Movement.**—Lectures in English giving a comparative view of romanticism in European and American literatures; assigned readings in English, French, or Spanish to meet the needs of the student. Open to graduates and undergraduates.
3 units, spring quarter (COESTER) MWF 1:05
*Spring, 8*

**E210. Introduction to the Study of Old Provençal.**—Reading of selected passages from Appel's *Provenzalische Chrestomathie,* with a study of Old Provençal Phonology and Morphology.
3 units, winter quarter (ANDERSON) MWF 3:05–4:05
*Winter, 2*

**E211. Romance Versification.**—The fundamental principles of Romance verse structure, with particular attention to French and Spanish, lectures and practical exercises.
3 units, autumn quarter (ESPINOSA) [Not given in 1930–31]

[**Vulgar Latin and Introduction to Romance Philology.**—See Classical Literature B222.]

[**Petronius.**—See Classical Literature B281.]

## SLAVIC LANGUAGES

HENRY LANZ, Assistant Professor

### SLAVIC LANGUAGES

**A1. Elementary Russian.**—It is the object of this course to put the students in possession of the elements of the Russian language. Beginning with a study of the alphabet, it covers the course in morphology, syntax, simple conversation, and reading of the easy Russian texts (short stories of Leo Tolstoy). Bondar, *Simplified Russian Method.*
4 units, autumn quarter (LANZ) MTThF 8
*Autumn, 5*

**A2. Elementary Russian** (continued).—The study of the aspects of the verbs and advanced practice in conversation and reading.
4 units, winter quarter (LANZ) MTThF 8
*Winter, 3*

**A3. Elementary Russian** (continued).—Thorough review of grammar; reading and conversation (Bondar).
4 units, spring quarter (LANZ) MTThF 8
*Spring, 3*

**A4. Commercial Russian.**—The object of this course is merely practical; it is intended to put the students in possession of the commercial vocabulary and make them able to transact business in Russian language. Special attention is given to the composition of business letters. Prerequisites: Slavic A1, A2, A3.
4 units, summer quarter (LANZ) [Not given in 1930–31]

**A5. Conversational Russian.**—For the beginners.
2 units, summer quarter (LANZ) By arrangement
*Summer, 3*

**A21. Second-Year Russian.**—Reading of Pushkin and Turgenev. Practice in conversation and composition on the basis of the material read. Forbes, *Russian Grammar.*
3 units, autumn quarter (LANZ) By arrangement
*Autumn, 1*

**A22. Second-Year Russian.**—Chekhov, Stories.
3 units, winter quarter (LANZ) [Not given in 1930–31]

**A23. Second-Year Russian.**—Reading of modern prose and poetry.
3 units, spring quarter (LANZ) [Not given in 1930–31]

**A105. Individual Work.**—Translation of documents in the Hoover collection.
(LANZ) By arrangement
*Autumn, 1; winter, 2; spring, 2; summer, 5*

**A131. Third-Year Russian.**—Individual work.
3 units, autumn quarter (LANZ) [Not given in 1930–31]

**A132. Third-Year Russian.**—Individual work.
3 units, winter quarter (LANZ) [Not given in 1930–31]

**A133. Third-Year Russian.**—Individual work.
3 units, spring quarter (LANZ) [Not given in 1930–31]

## SLAVIC LITERATURE

**C1. Slavic Civilization.**—This course is intended to acquaint students with the elements of Slavic history, literature, and art. Lectures in English, readings from English translations.
2 units, autumn, *spring, and *summer quarters (LANZ) TTh 10
*Autumn, 41; spring, 31; summer, 5*

**C100. Russian Realism.**—It is an attempt to present the literary history of Russia as an evolution of realistic forms. Special attention is paid to the literature of the nineteenth century. Knowledge of Russian is not required. (This course is acceptable for credit toward the degree of Bachelor of Arts in the School of Letters if combined with Course C100*a*.)
5 units, winter and *summer quarters (LANZ) MTWThF 9
*Winter, 47; summer, 28*

**C100a. Russian Realism.** (Supplementary Course.)—A reading course in Russian to be taken in conjunction with Course C100.
No credit (LANZ) By arrangement

**C101. Polish Romanticism.**—It is the object of this course to explain the development of Polish literature in the light of the social and historical conditions that led to the growth of Romanticism in Poland. Knowledge of Polish is not required.
2 units, winter quarter (Janz) [Not given in 1930-31]

**C102. Leo Tolstoy.**—His life and work. Special attention paid to exposition and criticism of Tolstoy's philosophical and religious doctrines. Lectures and readings from English translations. (This course is acceptable for credit toward the degree of Bachelor of Arts in the School of Letters if combined with Course C102*a*.)
3 units, winter and summer quarters (Lanz) [Not given in 1930–31]

**C102a. Leo Tolstoy.** (Supplementary Course.)—A reading course in Russian to be taken in conjunction with Course C102.
No credit (Lanz) By arrangement

**C103. Theodore Dostoyevsky.**—His life and work. (This course is acceptable for credit toward the degree of Bachelor of Arts in the School of Letters if combined with Course C103*a*.)
2 units, spring quarter (Lanz) [Not given in 1930–31]

**C103a. Theodore Dostoyevsky.** (Supplementary Course.)—A reading course in Russian to be taken in conjunction with Course C103.
No credit (Lanz) By arrangement

**C104. Russian Literature of the Twentieth Century,** with special emphasis on the revolutionary period.
2 units, winter quarter (Lanz) [Not given in 1930–31]

**C105. History of Slavic Literatures.**—This is a course specially designed for the students of the summer quarter. It is intended to give a brief account of the folklore and literatures of Slavic nations, including Russia, in connection with their history and their religious development. Lectures in English, and readings from English translations.
5 units, summer quarter (Lanz) [Not given in 1930–31]

**C106. Russian Art.**—This course is a systematic attempt to explain the development, the underlying principles, and the experimental technique of Russian art in its four principal divisions: architecture, painting, sculpture, and music. The problems of stage presentation are discussed in connection with modern developments in Russian opera. Special attention is paid to modern art, the study of which is greatly facilitated by the excellent art collection now in possession of the Hoover War Library. The course is conducted with the use of lantern slides.
2 units, summer quarter (Lanz) [Not given in 1930-31]

**C107. Theory of Rime.**—This course is intended as an introduction to the comparative study of rime and rhythm especially for the students of comparative literature.
2 units, autumn and spring quarters [Not given in 1930–31]

**C108. Eighteenth-Century Russian Literature.**
3 units, autumn quarter (Lanz) By arrangement
*Autumn, 1*

# LIBRARY

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Elizabeth Hadden, Chief of Order Division
Minna Stillman, Document Librarian
Louise Ophüls, Medical Librarian
Nina Almond, Hoover War Librarian
James Emmet Brenner, Law Librarian
Solon Shedd, Curator, Branner Geological Library
Florence Wickes, Acting Medical Librarian
William Owens, Acting Chief of Circulation Division

The Library is open during term time on week days from 8:00 A.M. to 10:00 P.M., except on Saturdays, when it is closed at 5:00 P.M. The Sunday hours are from 2:00 P.M. to 6:00 P.M. During vacations the hours are from 8:30 A.M. to 4:30 P.M., Saturdays to 12:30 P.M. The shelves are open to members of the faculty and, on recommendation of their instructors, to students engaged in advanced work. Books, other than works of reference, not required for class use or otherwise restricted, are available under prescribed rules for circulation to those entitled to the privileges of the Library. A handbook giving information relative to the Library and how to use it has been published and may be obtained upon request.

The Library may be used by all registered students without the payment of additional fees. Visitors regularly attending lecture courses or other University exercises, but not registered, are entitled to the privileges of the Library upon payment of a fee of $1.25 per quarter.

Including the departments of Law and Medicine, the Library contains upward of 465,000 volumes, and its maintenance and growth are insured by the income of the Jane Lathrop Stanford Jewel Fund, certain other special funds, and by fees.

The Library building is well adapted to meet the needs of advanced and graduate students. It contains eight rooms in which seminar classes may be held and one large room which serves as a reading-room for students in seminar classes; and tables on each floor of the stack make it possible for any graduate student to work in easy reach of the material in his field.

On the first floor—in the Hoover War Library and in the Document Room—are two collections of especial interest to research workers in the fields of history and economics.

*The Document Division* brings together the Library's collection of city, state, and federal documents. It is especially strong in the publications of the United States, Great Britain, Canada, and Australia, and those of other countries are being added as fast as circumstances permit. The collection now numbers 45,000 volumes besides much unbound material.

*The Hoover War Library* contains some 150,000 printed and manuscript items on all aspects of the World War, 1914–18, and for all nations whether combatant or neutral. It is rich in government documents, in delegation propaganda at the peace conferences, in files of the publications of social and political societies, and in newspapers. A special reading-room facilitates the use of the collection.

*The Hopkins Railway Library.*—A collection of approximately 10,000 volumes and pamphlets dealing with the subject of transportation. In 1892 Mr. Timothy Hopkins, of San Francisco, presented to the University his private library on railroads—about 2,000 books—personally providing for its maintenance and growth for many years. The collection is general in scope, intended to embrace all subjects touching on the building, maintenance, and operation of railways; and is especially rich in state and government reports, as well as in reports of individual railroads both in the United States and Europe, with much material pertaining to their history.

*The Charlotte Ashley Felton Memorial Library.*—Established in 1929 by Mrs. Kate Felton Neilson. This collection is devoted to first and other rare editions of American and English authors of the Nineteenth and Twentieth Centuries. It is rich in bibliographical material relating to this period. The donor has provided liberally for its maintenance and development.

Important divisions of the University Library, although separately housed, are:

*The Law Library.*—A library of about 35,000 volumes, selected with care and adequate for the study of English and American law. It contains practically complete sets of the reports of the courts of England, Scotland, Ireland, Canada, the United States, and the several states, together with a valuable collection of statutes, treatises, and periodicals.

*The Lane Medical Library.*—Founded by the directors of Cooper Medical College in accordance with the bequest of Mrs. L. C. Lane, and located opposite the other medical buildings, on the corner of Sacramento and Webster Streets, San Francisco. The library contains about 71,000 volumes and is particularly rich in its collection of medical and allied periodicals. The leading domestic and foreign journals are currently received.

Two important special collections are the Barkan library of ophthalmology and oto-laryngology, and the medical history library, both endowed by Dr. Adolph Barkan, professor emeritus of ophthalmology.

*The Jordan Library of Zoölogy.*—A collection consisting largely of works in ichthyology, to a considerable extent made up of numbers of author's separates, which have been accumulated by Chancellor Jordan and members of the Department of Zoölogy, bound in convenient form, indexed, and catalogued. The more voluminous publications such as the works of Cuvier, Lacépède, Bloch, Bleeker, Günther, and others are well represented. These, supplemented by the proceedings of various societies and institutions, make a collection of books of great value to advanced students and investigators. The library is conveniently arranged in the Natural History Museum, near the laboratories and collections.

*The Biology Library.*—Housed in Jordan Hall, the Biology library is a combination of the former department libraries of Botany, Physiology, Zoölogy, and Entomology, with some works on general biology, and now comprises about 5,000 volumes, together with current files of 125 periodicals.

Its aim is to further the efforts of students and research workers, and when complete, it should cover the literature of all phases of biological science represented in the student course and research fields of the University.

*The Branner Geological Library.*—The geological library (Room 333) is the result of twenty-five years of painstaking acquisition by Dr. John Casper Branner. It includes material relating to geology, paleontology, mineralogy, geography, mining, and metallurgy, and is especially well equipped with files of journals and the transactions of scientific societies, together with a large collection of state and government reports.

# SCHOOL OF MEDICINE

William Ophüls, Dean
Arthur Leonard Bloomfield, Secretary of the Medical Faculty

## ADMISSION TO THE SCHOOL OF MEDICINE

The first-year class in the School of Medicine is limited to fifty students, selected on the basis of scholarship and promise immediately after May 15, from those applicants who fulfill the following requirements:

1. Graduation from high school (or its equivalent), comprising fifteen recommended units, as defined by the University for admission to the Lower Division. (*Special students* are not admitted to registration in Medicine.)

2. Three full years of college work, totaling 135 quarter units (or an equivalent number of semester units), of a grade equivalent to that of Stanford University (counting twice as many grade points as there are units). The required work in these three years is that laid down by the Association of American Medical Colleges in Physics, Chemistry, Biology, and English, together with a reading knowledge of either French or German, and additional work in Chemistry and Biology as indicated below.

3. In addition to the A.A.M.C. minimum in Chemistry, the University requires Quantitative Analysis.

4. In Biological Science the University requires 15 quarter units, or 10 semester units, made up of courses in General Zoölogy (or General Biology), Comparative Anatomy of the Vertebrates, and General Vertebrate Embryology, substantially equivalent to the courses in those subjects given at Stanford University as indicated below.

*No conditions are permitted.*—Candidates for admission who, in June, 1931, will have completed the requirements above, except for a few units in collegiate subjects, should plan to make up these deficiencies in full by attendance at summer sessions during the summer of 1931.

In practice the foregoing requirements as applied to the pre-medical courses of Stanford University students work out about as follows:

### Chemistry

Chemistry 10 (General Inorganic Chemistry), 4 units.
Chemistry 11 (General Inorganic Chemistry), 4 units.
Chemistry 12 (General Inorganic Laboratory), 4 units.
Chemistry 111 and 112 (Quantitative Analysis), 5 units.
Chemistry 121 and 123 (Organic Chemistry), 6 units.

Students without entrance credit in Chemistry take Courses 1, 2, 3, and 4, instead of 10, 11, and 12. Total, 23 (or 26) quarter units; 15⅓ (or 17⅓) semester units.

### Physics

Physics 21 and 22 (Mechanics and Heat), 5 units.
Physics 23 and 24 (Electricity), 4 units.
Physics 25 (Modern Physics), 3 units.
Physics 26 (Elementary Optics), 1 unit.
Total, 13 quarter units (8⅔ semester units).

### Biology

Zoölogy 1 (General Zoölogy), 5 units or (Biology 1 and 2, 9 units).
Zoölogy 2 (Comparative Anatomy of the Vertebrates), 5 units.
Anatomy 112 (Mammalian Embryology), 5 units.
Total, 15 quarter units (10 semester units).

### English

Nine quarter units (6 semester units).

### French or German Reading Knowledge

This requirement varies somewhat with the ability of the student, but implies at least the equivalent of a year's work of 15 quarter units, based upon high-school courses.

## APPLICATION FOR ADMISSION

Applicants for admission to the School of Medicine, or for advanced standing in Medicine, should communicate with The Registrar, Stanford University, California; those desiring information concerning the upper classes of the School of Medicine (i.e., from the fifth to the twelfth quarters), should communicate with The Dean, Stanford University School of Medicine, 2398 Sacramento Street, San Francisco, California.

## THE CURRICULUM IN MEDICINE

The required period of study for the degree of Doctor of Medicine is twelve quarters plus the interne year. The work of the first four quarters is given at Stanford University and is devoted to anatomy, bacteriology, biochemistry, histology, neurology, and physiology. The next eight quarters are devoted to work in the pharmacological, pathological, and clinical laboratories, and in the hospital wards and the out-patient department in San Francisco. The last year is spent in hospital work.

In order to correlate the work of some of the departments and to facilitate research in others, all courses in Medicine, except those in anatomy, bacteriology, biochemistry, and physiology, are given in San Francisco. By reducing the number of required hours to approximately the number decided upon by the Association of American Medical Colleges, the student's opportunity for taking optional and elective courses has been increased and time obtained for thesis work.

## FEES

The tuition fee for all students in the School of Medicine (except those registered in the University prior to the autumn quarter of 1930) is $115 per quarter. Students previously registered may pay at the rate of $100 per quarter until the autumn quarter of 1933, when the increased fee will apply to all students. (A deposit of $20 is required of each applicant admitted to the entering class, or to advanced standing, in the School of Medicine, within ten days after receiving notice of his selection, this deposit being applied upon the payment of his tuition fees for the first quarter).

The hospital fee for students registered at San Francisco is $5 per quarter. The community fee for all students, except those registered at San Francisco, is $13 per quarter. This fee covers the privileges of the gym-

nasia, athletic grounds, hospitals, the Stanford Union or Women's Clubhouse, and membership in the Associated Students. A pavilion fee of $1 per quarter is collected from all undergraduates by the Associated Students.

In addition to the fees listed above, students are charged for the materials which they use. They also may be required by any department to make a deposit to cover breakage or loss of apparatus and materials, such deposits being returnable, less charge for breakage, loss, or wear and tear of apparatus. Students taking the fifth and sixth quarters in Medicine at San Francisco will be required to pay a deposit of $3 at the Business Office of Lane Hospital to cover breakage, or loss of apparatus of the Department of Pharmacology. The total deposits for this purpose may vary from $10 to $20 per quarter. A fee of $5 will be charged for the course in Surgery 204, Operative Surgery, in order to cover materials and supplies necessary for this course. Drafts and checks should be drawn for the exact amount to the order of Stanford University School of Medicine, as no change can be returned to students on checks or drafts.

## ANATOMY

ARTHUR WILLIAM MEYER, CHARLES HASKELL DANFORTH, JOSEPH CLARENCE HINSEY, FRANK MACE MCFARLAND, Professors
J. ELDRIDGE MARKEE, HOMER NEWTON VIOLETTE, Assistant Professors

[For outline of courses see under Anatomy, pp. 187–189.]

## BACTERIOLOGY AND EXPERIMENTAL PATHOLOGY

EDWIN WILLIAM SCHULTZ, WILFRED HAMILTON MANWARING, Professors
CHARLES EGOLF CLIFTON, Assistant Professor

[For outline of courses see under Bacteriology and Experimental Pathology, pp. 189–193.]

## CHEMISTRY

ROBERT ECKLES SWAIN, Professor
JAMES MURRAY LUCK, Assistant Professor

**Biochemistry.**—(See Courses 141 and 143, Department of Chemistry.)
4 units (40 hours), autumn and winter quarters (LUCK) TTh 8

**Biochemistry.**—(See Courses 142 and 144, Department of Chemistry.)
4 or 6 units (120 or 180 hours), autumn and winter quarters (LUCK)
MTW or WThF 1:05–4:05

[Students registered in Medicine are required to make a deposit of $15 in Courses 142 and 144 for two units of credit, and $20 for three units. Of these amounts $5 and $7.50 respectively, are returnable less cost of breakage.]

## MEDICINE

Charles Miner Cooper, Clinical Professor Emeritus

Arthur Leonard Bloomfield (Executive), Thomas Addis, George de Forest Barnett, William Edward Chamberlain (Radiology), Henry George Mehrtens (Neuropsychiatry), Professors

Harry Everett Alderson, William Fitch Cheney, †William Redwood P. Clark, Harold Phillips Hill, Allen Kramer Krause, Walter Frank Schaller, Clinical Professors

William Dock, Harry Leslie Langnecker, Robert Reid Newell, Harry Alphonso Wyckoff, Associate Professors

Walter Whitney Boardman, Horace Gray, Samuel H. Hurwitz, Thomas George Inman, Philip Hale Pierson, Jay Marion Read, Stuart C. Way, Julian Wolfsohn, Associate Clinical Professors

John Kent Lewis, Assistant Professor

Joseph Henry Catton, James Arthur Cutting, Merlin T. R. Maynard, Arthur Aloysius O'Neill, John Morse Rehfisch, Assistant Clinical Professors

Helen Marshall, Instructor

Charles Wentworth Barnett, William George Burkhard, Donald Alfonso Carson, Garnett Cheney, Joseph Charles Cuneo, Leo Henry Garland, Willard E. Kay, Thomas Henshaw Kelly, William Kenney, Arthur Carol McKenney, Jr., Roger Bain McKenzie, Laird M. Morris, Elizabeth G. Nicholls, Pearl Sylva Pouppirt, Walter Schilling, Dwight Emerson Shepardson, Julius Sherman, Edward F. Stadtherr, Pleasant A. Taylor, Clinical Instructors

Leona Mayer Bayer, Joseph G. Brady, H. Cabot Brown, De Witt K. Burnham, Helen Hopkins Detrick, John L. Fanning, Anthony A. Ferrante, Charles D. Fletcher, Charles Dudley Gwinn, Bernard Kaufman, Edward Leef, Eric G. Liljencrantz, John E. Medd, William Wise Newman, Elwood Richard Olsen, Sadie D. Patek, S. Barre Paul, Esteban Reyes, Ralph Arthur Reynolds, Archie Marvin Roberts, Martin J. Seid, Melvin R. Somers, Dorothy Johanna Starks, Emile David Torre, Assistants

Jean Benedict Spaulding (Neurology and Pharmacology), Assistant in Research

Lambert B. Coblentz, Edward Matzger, Assistant Lecturers

John Lockhart Campbell, Clinic Dentist

### DIVISIONS

Neuropsychiatry Radiology Cutaneous Medicine and Syphilis
Physiotherapy Tuberculosis

Instruction in the Department of Medicine normally commences in the fifth quarter of medical registration, at which time the courses in Physical Diag-

† Absent on leave, 1930–31.

nosis and Clinical Pathology are started. These courses are prerequisite for most other courses in this department.

Before beginning the interne year, students are required: (1) to have completed the prescribed courses, and (2) to have passed a final examination in Internal Medicine, Neurology, and Cutaneous Medicine.

Deviations from this general plan of work will be permitted only after obtaining permission of the instructors involved and of the Executive Head of the Department of Medicine.

### COURSES FOR SECOND-YEAR STUDENTS

**201. Introduction to Clinical Medicine.**—Preliminary demonstrations and practice in the methods of physical diagnosis followed by bedside work in which abnormal physical findings are correlated with symptoms and laboratory data.

6 hours (120 hours), winter and spring quarters (BARNETT) (San Francisco Hospital) TThS 8:30–10:30

*Winter, 45; spring, 45*

**202. Clinical Pathology.**—Lectures and laboratory work. The usual methods of examining the urine, blood, sputum, gastric contents, feces, and cerebro-spinal fluid are carried out by the student and the insignificance of abnormalities is noted.

4 hours (80 hours), winter and spring quarters (WYCKOFF) (winter) (Lane Hall) W 9:30–11:30, F 10:30–12:30 (spring) WF 9:30–11:30

*Winter, 45; spring, 45*

**203. Radiology.**—Lectures and section work: Lane Hospital.

1 hour (10 hours), spring quarter (CHAMBERLAIN, NEWELL) T 4–5

*Spring, 45*

### COURSES FOR THIRD-YEAR STUDENTS

The third-year class is divided into two sections, each of which is assigned for sixteen weeks to Lane Hospital and to the San Francisco Hospital.

Each section is subdivided into two sub-sections and assigned for eight weeks each to the Department of Medicine and to the Departments of Surgery and Gynecology and Obstetrics.

The students assigned to Medicine at Lane Hospital and at San Francisco Hospital do bedside work in general Medicine and Neurology.

During the assignment to the San Francisco Hospital, students attend clinics on tuberculosis and other communicable diseases.

**204. Ward Work in General Medicine: Lane Hospital.**

9 hours (72 hours) (BLOOMFIELD, CHENEY, and STAFF) MTWThFS mornings

*First semester, 25; second semester, 24*

**205. Ward Work in General Medicine: San Francisco Hospital.**

16 hours (128 hours) (BARNETT and STAFF) MTWThFS 8:30

*First semester, 25; second semester, 25*

**206. Set Clinic in Medicine: Lane Hospital.**

1 hour (16 hours), third year

1 hour (32 hours), fourth year (BLOOMFIELD) (Lane Hall) T 11:30-12:30

*First semester, 68; second semester, 67*

**207. Set Clinic in General Medicine: San Francisco Hospital.**

1½ hours (24 hours) (HILL) F 11–12:30

*First semester, 25; second semester, 25*

**208. Neurology.**—Ward work: Lane Hospital.

9 hours (36 hours) (INMAN, SCHALLER) MTWThFS mornings

*First semester, 25; second semester, 24*

**209. Neurology.**—Clinic: San Francisco Hospital.
1 hour (8 hours) (WOLFSOHN) Th 11:30–12:30
*First semester, 25; second semester, 25*

**210. Tuberculosis Clinic: San Francisco Hospital.**
1 hour (8 hours) (CLARK) (one-half of the class) S 9–11
*First semester, 25; second semester, 25*

**211. Communicable Diseases Clinic: San Francisco Hospital.**
1 hour (8 hours) (O'NEILL) (one-half of the class) S 9–11
*First semester, 25; second semester, 25*

**212. Clinical-Radiological Conference: Lane Hospital.**
1 hour (16 hours), third year
1 hour (32 hours), fourth year (CHAMBERLAIN, BLOOMFIELD, and STAFFS) (Lane Hall) M 11:30–12:30
*First semester, 68; second semester, 67*

**213. Out-Patient Clinic, Minor Medicine, and Surgery.**
1 hour (16 hours), third year
1 hour (32 hours), fourth year (Lane Hall) S 11:30–12:30
*First semester, 68; second semester, 67*

**214. Clinical Demonstrations of Special Topics in Internal Medicine.**
1 hour (30 hours), autumn, winter, and spring quarters (DOCK and STAFF) (Lane Hall) Th 3:30–4:30
*Autumn, 50; winter, 50; spring, 49*

## COURSES FOR FOURTH-YEAR STUDENTS

All of the work of the fourth year is given at Lane Hospital and the School of Medicine. For work in the Out-Patient Department the class is divided into eight sections which are assigned in rotation to the various clinics. During the time assigned to the Department of Medicine, students work in General Medicine, Neurology, and Dermatology and Syphilis.

All students of the fourth year are required to attend Courses 206, 212, and 213.

**215. Out-Patient Department, General Medicine.**
12 hours (96 hours) MTWThFS 9:30–11:30
*First semester (96 hours) 16, (48 hours) 11;*
*Second semester (96 hours) 16, (48 hours) 11*

**216. Out-Patient Department, Neuropsychiatry.**
12 hours (48 hours) (MEHRTENS, POUPPIRT, SOMERS) MTWThFS 9:30–11:30
*First semester, 23; second semester, 20*

**217. Out-Patient Department, Dermatology and Syphilis.**
12 hours (48 hours) (ALDERSON and STAFF) MTWThFS 9:30–11:30
*First semester, 20; second semester, 23*

**218. Psychiatry.**—Lectures and Clinics.
2 hours (40 hours), autumn and winter quarters (Lane Hall) M 1:30–3:30
1 hour (10 hours), spring quarter M 1:30–2:30
(MEHRTENS, CUTTING)
*Autumn, 44; winter, 44; spring, 44*

**219. History of Medicine.**—In association with other departments.
1 hour (10 hours), spring quarter (Lane Library) M 3:30–4:30
*Spring, 44*

**220. Physical Therapeutics.** Lectures and demonstrations. Given in sections of one-third of the class.
1 hour (10 hours), spring quarter (LANGNECKER) M 2:30 3:30, WF 1:30–2:30
*Spring, 44*

**221. Legal Medicine.**
1 hour (10 hours), spring quarter (Lane Hall) M 8:30–9:30
*Spring, 43*

ELECTIVE COURSES

1. **Ward Rounds in Medicine.**—For fourth-year students only. Limited to twelve students.
3 hours (30 hours) 8:30–9:30 By arrangement

2. **Ward Rounds in Neurology.**—For fourth-year students only. Limited to six students.
3 hours (30 hours) 8:30–9:30 By arrangement

3. **Mental Rating in Neuropsychiatry.**—Limited to four students.
1 hour (10 hours) (MARSHALL) By arrangement
*Winter, 5*

4. **Diseases of the Endocrine Glands.**—Clinics and recitations.
Spring quarter (KAY) By arrangement
*Spring, 11*

5. **Radiology.**—Experience in Roentgen Diagnosis and Roentgen and Radium Therapy. Limited to six students per section.
1 hour (10 hours), autumn, winter, and spring quarters
(CHAMBERLAIN, NEWELL) (autumn and winter) TWF 4 5; (spring) WF 4–5
*Autumn, 14; winter, 15; spring, 15*

6. **Radiology.**—Experience in the actual use of the fluoroscope. Limited to two students per section. A section runs daily for one week, throughout the year.
9 hours (9 hours) (CHAMBERLAIN, NEWELL) 8–9:30
*Autumn, 18; winter, 20*

7. **Dentistry for Medical Students.**—Five lectures covering the anatomy and pathology of the teeth, treatment of caries, dental surgery, prosthetic dentistry, orthodontia, and preventive dentistry. For third- and fourth-year students.
Spring quarter (CAMPBELL) By arrangement

## OBSTETRICS AND GYNECOLOGY

ALFRED BAKER SPALDING, Professor
C. FREDERIC FLUHMANN, Associate Professor
LUDWIG AUGUSTUS EMGE, KARL LUDWIG SCHAUPP, HENRY AUGUSTUS STEPHENSON, WILLIAM EMERSON STEVENS, Associate Clinical Professors
HANS VONGELDERN, LEWIS MICHELSON, ALBERT VICTOR PETTIT, Assistant Clinical Professors
ROBERT GLENN CRAIG, DONALD ALEXANDER DALLAS, WILLIAM C. HOBDY, Clinical Instructors
LEONARD F. BRUML, GEORGE ERIC CHAPMAN, HERBERT ARTHUR CILLEY, CHESTER LYNN COOLEY, PAUL EDWARD HOFFMANN, DOROTHY MORSE, Assistants

REQUIRED COURSES FOR SECOND-YEAR STUDENTS

201. **Obstetrics, Histology.**—Lecture one hour, laboratory one hour a week.
2 hours (20 hours), winter quarter (VONGELDERN) (Room 506) F 8:30–10:30
*Winter, 45*

**202. Obstetrics.**—Normal pregnancy, labor and puerperium.
2 hours (20 hours), winter quarter (FLUHMANN) (Room 506) M 9:30–10:30 W 8:30–9:30
*Winter, 45*

**203. Gynecology.**—Lectures.
2 hours (20 hours), spring quarter (EMGE) (Room 506) WF 8:30–9:30
*Spring, 45*

REQUIRED COURSES FOR THIRD-YEAR STUDENTS

**204. Obstetrics.**—Abnormal pregnancy, labor and puerperium, and obstetrical operations.
1 hour (31 hours), autumn, winter, and spring quarters (SPALDING) (Room 515) M 3:30–4:30
*Autumn, 50; winter, 50; spring, 49*

**205. Ward Rounds: Lane Hospital.**—Obstetrics and gynecology.
2 hours (16 hours), autumn, winter, and spring quarters (CRAIG, STEPHENSON) TS 8:30–9:30
*First semester, 25; second semester, 24*

**206. Ward Rounds: San Francisco Hospital.**—Obstetrics and gynecology.
1 hour (8 hours), autumn, winter, and spring quarters (autumn and winter, SCHAUPP, VONGELDERN; spring, EMGE, PETTIT) F 8:30–9:30
*First semester, 25; second semester, 25*

**207. Ward Work: Lane Hospital.**—Gynecology.
2 hours (27 hours), autumn, winter, and spring quarters (ASSISTANT RESIDENT) Daily 9:30–11:30
*First semester, 25; second semester, 24*

**208. Ward Work: San Francisco Hospital.**—Gynecology.
2 hours (27 hours), autumn, winter, and spring quarters (HOUSE OFFICER) Daily 9:30–11:30
*First semester, 25; second semester, 25*

**209. Attendance on Deliveries.**—Each student is required to witness ten deliveries either in Lane Hospital or San Francisco Hospital.
1 hour (10 hours), autumn, winter, and spring quarters (JUNIOR INTERNE)

REQUIRED COURSES FOR FOURTH-YEAR STUDENTS

**210. Manikin Exercises.**—One-half of class on Wednesday, other half on Friday.
1 hour (10 hours), autumn quarter (VONGELDERN, PETTIT) (Room 506) WF 1:30–2:30
*Autumn, 43*

**211. Women's Clinic.**—Obstetrics, gynecology and urology in women.
2 hours (48 hours), autumn, winter, and spring quarters (SPALDING and STAFF) Daily 9:30–11:30
*First semester, 22; second semester, 21*

ELECTIVE COURSES

**212. Gynecology, Pathology.**—Laboratory two hours a week. Fourth-year students.
2 hours (20 hours), spring quarter (FLUHMANN) (Room 405) W 3–5

**213. Prenatal Clinic.** Limited to four students for periods of one month. Seniors.
2 hours (8 hours), autumn, winter, and spring quarters (ASSISTANT RESIDENT) W 1:30–3:30
*Autumn, 14; winter, 14; spring, 14*

**214. Out-Patient Obstetrics.**—For periods of two weeks students electing this course will be excused from other class duties while attending the delivery of patients. Seniors.

(70 hours), autumn, winter, and spring quarters (Assistant Resident)
*Autumn, 37; winter, 37; spring, 37*

## PATHOLOGY

William Ophüls, Professor
Edward Merchant Butt, Instructor
James Bernard McNaught, David Alvra Wood, Assistants

The following courses in Pathology are required of medical students: Pathology 201, two quarters; Pathology 203, three quarters; Pathology 204, three quarters.

### COURSE FOR SECOND-YEAR STUDENTS

**201. General Pathology.**—A course of lectures, demonstrations, and laboratory work which covers disturbances in circulation, regressive and progressive tissue changes, inflammation, granulomata, and tumors. The study of human material is supplemented by experiments. Two lectures of 1 hour and two laboratory periods of 2½ hours each per week in the winter quarter, and one lecture of 1 hour and two laboratory periods of 2½ hours each week in the spring quarter. Prerequisites: Histology, Bacteriology.

7 hours (70 hours), winter quarter
6 hours (60 hours), spring quarter (Ophüls, Butt)
(Room 405) (winter) M 8:30–9:30, S 11:30–12:30, MF 1:30–4
(spring) M 8:30–9:30, MF 1:30–4
*Winter, 45; spring, 45*

### COURSE FOR THIRD-YEAR STUDENTS

**203. Special Pathology.**—A course of demonstrations of fresh and preserved gross and microscopical specimens, illustrating selected chapters of Human Pathology. Part of the time is devoted to the technic of postmortem examinations. Diagnostic work is done in the spring quarter. Prerequisite: General Pathology.

4 hours (124 hours), autumn, winter, and spring quarters (Ophüls)
(Morgue, Lane Hospital) W 2:30–4:30; (Room 405) T 2:30–3:30, Th 1:30–2:30
*Autumn, 50; winter, 50; spring, 49*

### COURSES FOR FOURTH-YEAR STUDENTS

**204. Clinico-Pathological Demonstrations.**—Three quarters required. During the summer quarter this is given by request.

1 hour (31 hours), autumn, winter, and spring quarters (Ophüls)
(Morgue, Lane Hospital) W 11:30–12:30
*Autumn, 43; winter, 43; spring, 43*

**205. Research Work in the Pathological Laboratory.**—Students wishing to do special work in the Pathological Laboratory should have finished Course 201. They should consult with the Executive of the Department in regard to the selection of a proper subject for investigation. As the laboratory accommodations are limited, students must do a reasonable amount of

work, otherwise the privilege will be withdrawn. A deposit of $10 will be required to cover such material as is used by the student in the course of his work. Such part of this as is not drawn against will be refunded on the completion of the work undertaken. Work may be undertaken during any of the four quarters. The same regulations apply to work on theses or for advanced degrees in the department, except that in the latter case the students also should have finished Course 203.

During the summer quarter a special effort will be made to accommodate properly prepared undergraduates or graduates who wish to do experimental work in Pathology.

(OPHÜLS)

## PEDIATRICS

HAROLD KNIEST FABER, Professor
LLOYD BLACKWELL DICKEY, Associate Professor
MARY H. LAYMAN, †HERBERT HENRY YERINGTON, Associate Clinical Professors
JOHN JOSEPH KINGSTON, JAMES CLIFFORD PARROTT, ROLAND P. SEITZ, Assistant Clinical Professors
RALEIGH W. BURLINGAME, ESTHER B. CLARK, LUCAS WISTAR EMPEY, Clinical Instructors
RUTH GARLAND BOWES, FANNIE HADDEN, EILEEN M. LEONARD, HARRY RICHARD LUSIGNAN, MAX ARCHIE WATERS, Assistants
ADELAIDE BROWN, Lecturer on Child Hygiene
GEORGE DUNLAP LYMAN, Lecturer on Pediatrics

### COURSES FOR THIRD-YEAR STUDENTS

The third-year class will be divided into four sections assigned to bedside work in the Children's Wards of Lane Hospital, each for a period of eight weeks. By arrangement with the Department of Medicine students will divide their time according to assignment of patients between the Medical Wards and the Children's Wards.

**201. Ward Work in Pediatrics: Lane Hospital.**
9 hours (36 hours) (FABER, DICKEY, LAYMAN, SEITZ)
(Ward rounds T 9:30–10:30, F 8:30–9:30) MTWThFS mornings
*First semester, 25; second semester, 24*

**202. Set Clinic in Pediatrics: Lane Hall.**
1 hour (16 hours), third year
2 hours (32 hours), fourth year (FABER, DICKEY, LAYMAN) Th 11:30–12:30
*First semester, 68; second semester, 67*

### COURSES FOR FOURTH-YEAR STUDENTS

**203. Lectures in Child Welfare.**
1 hour (10 hours), autumn quarter (BROWN) (Room 311) Th 8:30–9:30
*Autumn, 43*

**204. Out-Patient Department, Pediatrics.**
12 hours (48 hours) (DICKEY, LAYMAN, PARROTT, BURLINGAME)
MTWThFS 9:30–11:30
*First semester, 23; second semester, 20*

† Absent on leave, 1930–31.

Students will be assigned to Pediatrics in sections, each for four weeks. One-half of each section will be assigned for one-half of the period to work at the Isolation Hospital.

ELECTIVE COURSES FOR FOURTH-YEAR STUDENTS

1. **Ward Rounds in Pediatrics.**—Limited to 12 students.
1 hour (10 hours) (Faber, Dickey, Layman, Seitz) S 8:30–9:30

2. **Lectures on Communicable Diseases in Children.**
1 hour (10 hours), spring quarter (O'Neill or Dickey) By arrangement
*Spring, 16*

3. **Lectures on Child Psychology, Normal and Abnormal.**
1 hour (10 hours), winter quarter (Layman) By arrangement
*Winter, 6*

## PHARMACOLOGY AND THERAPEUTICS

Paul John Hanzlik, Professor
†Maurice Lane Tainter, Associate Professor
Russel van Arsdale Lee, Assistant Clinical Professor of Therapeutics
Andrew Benton Stockton, Instructor in Therapeutics
Frederick Proescher, Lecturer in Therapeutics
Jean Benedict Spaulding, Assistant in Research (Pharmacology and Neurology)
Arnold John Lehman, Morton Alfred Seidenfeld, Assistants in Instruction and Research

REQUIRED COURSES FOR SECOND-YEAR STUDENTS

**201. Chemical Pharmacology.**—The course treats of the physical and chemical aspects of drug actions, including exercises on typical pharmaceutical preparations, principles of prescription writing, general toxicology, etc. The work consists of demonstrations, class practice, and conferences.
Didactic, 16 hours; laboratory, 32 hours; total 48 hours; given during the first 8 weeks of the winter quarter (Tainter)
Didactic MW 11:30–12:30, Lab. TTh 1:30–3:30
*Winter, 45*

**202. Experimental Pharmacodynamics.**—This course consists of demonstration and class experiments with living tissues and animals and illustrates the actions of drugs and methods of experimental analysis. Nearly one-half of the periods is devoted to demonstrations by the instructors and the remainder is given to class practice and to discussion of the results in conferences. The work of Courses 201 and 202 forms the basis of other courses in the department.
Conferences, 24 hours; laboratory, 48 hours; total 72 hours; given during the last 2 weeks of the winter and all of the spring quarters (Hanzlik, Tainter)
Conferences MW 11:30–12:30, Lab. TTh 1:30–3:30
*Winter, 45; spring, 45*

**203. Systematic Pharmacology.**—The course covers locally acting drugs.
Conferences 10 hours, spring quarter (Tainter) S 11:30–12:30
*Spring, 45*

† Absent on leave, 1930–31.

REQUIRED COURSES FOR THIRD-YEAR STUDENTS

**204. Systematic Pharmacology.**—In this course the systemic actions, including the experimental basis, toxicity and clinical actions, uses, and doses of the more important drugs are considered. Instruction is given by lectures and conferences.

60 hours, autumn and winter quarters (HANZLIK, TAINTER) MWF 2:30–3:30
*Autumn, 50; winter, 50*

**205. General Therapeutics.**—This course attempts a systematic presentation of the indications for and uses of drugs and other agents in the treatment of disease, and consists of lectures, conferences, and prescription writing practice.

30 hours, spring quarter (STOCKTON) MWF 2:30–3:30
*Spring, 49*

ELECTIVE COURSES

**206. Research in Pharmacology and Therapeutics.**—Open throughout the year to students for thesis and to graduates with proper qualifications and special interest in these subjects. Work may be done independently or under supervision in the department. For students not less than four hours per week.

(STAFF) By appointment

**207. Clinical Therapeutic Conference.**—One hour weekly throughout the year for third- and fourth-year students. The work consists of conferences on therapeutic methods and results at the bedside; given in the wards of San Francisco Hospital. Limited to six students.

(LEE) Wednesday

**208. Special Topics in Therapeutics.** — Results of institutional treatment and research in chronic disease, given by lecture, demonstration, or conference. The number of subjects and hours will vary from year to year. During 1929–30, three sessions were devoted to the symptomatic treatment of epilepsy, treatment of neurosyphilis and chemotherapy of dementia praecox. For third- and fourth-year students.

Spring quarter (PROESCHER) By appointment
*Spring, 8*

## PHYSIOLOGY

OLIVER PEEBLES JENKINS, Professor Emeritus

ERNEST GALE MARTIN, JAMES ROLLIN SLONAKER, Professors
JAMES PERCY BAUMBERGER, GEORGE DANIEL SHAFER, FRANK WALTER WEYMOUTH, Associate Professors
JOHN FIELD II, VICTOR ERNEST HALL, Assistant Professors

[See Courses 103, 104, 105, and 207 outlined on pp. 207–208.]

## PUBLIC HEALTH AND PREVENTIVE MEDICINE

Ernest Charles Dickson (Executive), Professor
William Walter Reich, Assistant Clinical Professor
George Dock (Special Lecturer in Tropical Diseases), Leon Benedict Reynolds (Professor of Hydraulic and Sanitary Engineering, Stanford University, Special Lecturer in Sanitation), Morton Raymond Gibbons (Industrial Medicine and Life Insurance), Herbert Gunn (Tropical Medicine), William Peacey Shepard (Industrial Hygiene), Harry Alphonso Wyckoff (Tropical Medicine), Lecturers
Harold Delos Chope, Assistant
C. Emelia Peterson, Research Assistant
Gail Sweney Reeves, Nina Alexander Chern, Assistant Bacteriologists
Mildred Alice Grennan, Technician

**201. The Principles of Public Health and Preventive Medicine.**—A lecture course of 40 hours which includes discussion of the various problems of public health and preventive medicine. The lectures are given by members of the teaching staff and by others who are actively interested in various aspects of public-health work.
2 hours (40 hours), fifth and sixth quarters (Dickson, Reynolds, Shepard) (Room 311) MTh 4–5
*Winter, 45; spring, 45*

**202. Industrial Medicine and Life Insurance.**—A lecture course of ten hours dealing with the relation of medicine and surgery to industrial accidents, the State Compensation Law, and the medical aspects of life insurance.
1 hour (10 hours), twelfth quarter (Gibbons) (Room 311) F 8:30–9:30
*Spring, 43*

**203. Parasitology.**—A laboratory course in which the student has an opportunity to study the usual parasites which are encountered in medical practice.
2 hours (20 hours), seventh quarter (Wyckoff) (Room 312b) F 3:30–5:30
*Autumn, 50*

**204. Tropical Medicine.**—A course of lectures and discussions dealing especially with those tropical diseases which occur in the United States and emphasizing the common methods of spread and of mass control.
2 hours (20 hours), seventh quarter (Gunn) (Room 311) MTh 4:30–5:30
*Autumn, 50*

**205. Demonstrations and Conferences.**—A series of demonstrations and discussions of practical procedures in the epidemiology, diagnosis, and specific therapy of communicable diseases.
2 hours (20 hours), eleventh quarter (Dickson) (Room 311) TTh 8:30–9:30
*Winter, 43*

**206. Sanitary Survey.**—Each student is required to make a sanitary survey of a municipality or industrial plant, an epidemiological investigation of an outbreak of communicable disease, or a report on some other problem of public-health control, and to present the report before the end of the eighth quarter. The problem to be investigated should be selected by the student but *must be approved* by the executive of the department.

### ELECTIVE COURSES

**207. Serology.**—A laboratory course in which the student becomes familiar with the methods of preparing and standardizing antigens, amboceptors, etc.,

and with the technic of complement fixation tests (Wassermann test) and agglutination tests. Limited to six students.
2 hours (20 hours), fourth year, spring quarter (WYCKOFF) (Room 312b) F 2:30–4:30

*Spring, 4*

**208. Diagnostic Laboratory Exercises.**—A practical course in the Bacteriological diagnosis of Communicable Diseases. Limited to twelve students of the fourth year in each quarter.
Hours to be arranged (CHOPE, REICH, PETERSON) (Room 401)
*Autumn, 12; winter, 10; spring, 11*

## SURGERY

ADOLPH BARKAN, FRANK ELLSWORTH BLAISDELL, EMMET RIXFORD, STANLEY STILLMAN, Professors Emeritus
ALBERT BROWN MCKEE, RUFUS LEE RIGDON, Clinical Professors Emeritus

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EMILE FREDERIC HOLMAN (Executive), LEONARD W. ELY, FREDERICK LEET REICHERT, Professors
HANS BARKAN, LEO ELOESSER, PHILIP KINGSNORTH GILMAN, EDWARD CECIL SEWALL, Clinical Professors
JOHN ADOLPH BACHER, EDMUND BUTLER, JAMES ROOT DILLON, ARTHUR LAWRENCE FISHER, HARRINGTON BIDWELL GRAHAM, HARVARD YOUNG MCNAUGHT, CAROLINE BELL PALMER, EDWARD BANCROFT TOWNE, Associate Clinical Professors
OTTO BARKAN, JOHN ROBERT BURROWS, HAROLD AUGUSTUS FLETCHER, SYLVAN LEWIS HAAS, MERRILL COLEMAN MENSOR, WILBER FRANK SWETT, Assistant Clinical Professors
CURTIS BYRON GORHAM, NELSON J. HOWARD, ROBERT SCARBOROUGH, Instructors
REA ERNEST ASHLEY, LEROY BROOKS, LOREN ROSCOE CHANDLER, SIGURD VON CHRISTIERSON, JOHN W. CLINE, ALBERT DAVID DAVIS, GEORGE NEWTON HOSFORD, HENRY A. R. KREUTZMANN, J. MINTON MEHERIN, EDMUND J. MORRISSEY, GUNTHER W. NAGEL, ROBERT ALLISON OSTROFF, DOHRMANN KASPAR PISCHEL, AUBREY GATLIFF RAWLINS, LORRULI ANNA RETHWILM, LLOYD ROBINSON REYNOLDS, FRANK RODIN, †WILLIAM LISTER ROGERS, HERBERT GORDON SMITH, BLAKE COLBURN WILBUR, CHESTER HOWARD WOOLSEY, Clinical Instructors
SAMUEL FREDERICK BOYLE, DAVID BRINKERHOFF, ERVING J. CASPER, CLARENCE BERT COWAN, SAMUEL A. GOLDMAN, GORDON FRIEDRICH HELSLEY, JAMES GORDON HENDERSON, ROBERT STEELE IRVINE, PHILLIPS JOHNSON, MARY ELIZABETH MATHES, WILLIAM H. NORTHWAY, FRANCIS PAUL O'HARA, MILLARD R. OTTINGER, PAUL THERON PACE, CLARENCE CHIPLEY PORTER, HARVEY O. RANDEL, GILBERT JAY ROBERTS, LORENZ WEIR RUDDY, JOHN C. SHARP, WILLIAM ARTELL SUMNER, CLINTON WILSON, ALVIN P. WOLD, EDWARD F. ZIEGELMAN, Assistants.
GEORGE WASHINGTON HARTMAN, HENRY ANTHON LEWIS RYFKOGEL, Lecturers

† Absent on leave, 1930–31.

## DIVISIONS

Ophthalmology
Genito-Urinary Diseases
Orthopedic Surgery
Otology, Rhinology, and Laryngology

## GENERAL PLAN OF INSTRUCTION

Instruction in Surgery begins in the fifth quarter of the second year with recitations and discussions on assigned reading in a standard textbook. This course is intended to acquaint the student with the principles of surgery. Elementary instruction in the physical diagnosis of surgical conditions is included in the course given by the Department of Medicine. Four lectures on anaesthesia are included in the course.

The laboratory course in the second year includes demonstrations of methods of sterilization of surgical supplies. It includes also operations in which surgical procedures are performed on living animals under complete ether anaesthesia, and under exactly the same conditions that prevail in the modern operating room, particular attention being paid to asepsis, hemostasis, and the healing of wounds. Demonstrations and practice in the use of bandages, plaster, and surgical appliances are provided. The laboratory course in fractures and dislocations includes a study of X-ray plates and the production of the more important fractures and dislocations on a cadaver with immediate examination by dissection.

In the third year the students serve in the surgical wards of the Lane and San Francisco Hospitals as clinical clerks for a period of eight weeks in each hospital. The student is an integral member of the surgical house staff, spending his time each morning from 8:30 to 11:30 on the wards and in the operating rooms. Ward rounds are held daily at 8:30 covering the fields of general surgery, orthopedics, urology, and gynecology. The patients entering the hospital on these services are assigned to the student in rotation, and the student is held responsible for a complete history, a complete physical examination under the supervision of the interne, and for the routine laboratory work such as urinalysis, blood, sputum, and feces analysis. The student is responsible for the presentation of his cases at clinics, conferences, and ward rounds, and must be primed in collateral reading for a full discussion of the case at these meetings. The student assists at the operations on his patients and follows closely the post-operative care of the patient. He is held responsible for a description of the macroscopic and microscopic appearance of whatever pathological material is obtained. During this period the student gives anaesthesia under supervision to ten cases.

Before entering upon his work in the ward the student is expected to provide himself with a certain minimum equipment which will enable him to make complete examinations of all patients under his care, so that he may thoroughly acquaint himself with the normal tissues before encountering the abnormal. This equipment includes the following: stethoscope, percussion hammer, tape measure, skin pencil, haemacytometer, nasal speculum, laryngeal mirror, ophthalmoscope, otoscope, head-mirror, haemometer, sphygmomanometer, and a thermometer. This equipment represents the instruments that every practitioner should have when he begins the practice of medicine, and it is to his advantage to learn their use while a student.

Amphitheater clinics are held once weekly at the San Francisco Hospital,

attended by one-half the third-year class, and once weekly at the Lane Hospital, attended by the other half of the third-year class and by all the fourth-year class. Patients are presented so as to illustrate, in the course of the year, most of the surgical diseases of the different regions of the body.

In the fourth year the student is assigned to work in the various clinics of the Out-Patient Department. Under the supervision of instructors, he examines and helps care for the patients in the surgical, orthopedic, urological, otolaryngological, and ophthalmological dispensaries. An attempt is made in some of the clinics to duplicate individual office practice.

During the fourth year certain elective courses are open to a limited number of students who are particularly interested in the field of surgery, and in the laboratory investigation of surgical problems.

During one-half the third year and during all the fourth year, the student attends once weekly the out-patient amphitheater clinic, where patients from the several out-patient clinics are presented. In this way it is hoped to acquaint the student with a fair knowledge of how to care for the numerous minor ailments which he will encounter immediately upon his entrance into practice.

## REQUIRED COURSES FOR SECOND-YEAR STUDENTS

**201. Introduction to Surgery.**—Recitations and discussions on assigned reading.
2 hours (40 hours), winter and spring quarters (HOLMAN, REICHERT, WILBUR, PALMER) (Room 506 and Surgical Clinic) TTh 11:30–12:30
*Winter, 45; spring, 45*

**202. Fractures and Dislocations.**
3 hours (30 hours), winter and spring quarters (ELY, HOWARD, SCARBOROUGH) (LANE Hall and Orthopedic Clinic) One-half the class on alternate Wednesdays 1:30–4:30
*Winter, 45; spring, 45*

**203. Laboratory Course.**—Demonstrations and practice in bandaging, splinting, dressing of wounds, hypodermoclysis, venesection, etc.
3 hours (15 hours), winter and spring quarters (SCARBOROUGH)
(Surgical Amphitheater) One-fourth the class on alternate Wednesdays 1:30–4:30
*Winter, 45; spring, 45*

**204. Operative Surgery.**—Students serve in succession as anaesthetist, surgeon, first assistant, second assistant, nurse.
3 hours (15 hours), winter and spring quarters (REICHERT)
(Surgical Laboratory) One-fourth the class on alternate Wednesdays 1:30–4:30
*Winter, 45; spring, 45*

**205. Orthopedic Surgery.**—Lectures and demonstrations.
1 hour (10 hours), spring quarter (ELY) (Lane Hall) M 10:30–11:30
*Spring, 45*

## REQUIRED COURSES FOR THIRD-YEAR STUDENTS

For purposes of morning instruction the third-year class will be divided into four sections, *A*, *B*, *C*, and *D*, each section spending eight weeks on each of the following services: (*a*) Lane Hospital Medicine, (*b*) Lane Hospital Surgery, (*c*) San Francisco Hospital Medicine, (*d*) San Francisco Hospital Surgery.

**206. Ward Rounds and Ward Work: Lane Hospital.**
104 hours (Gynecology, 40 hours) for 8 weeks (HOLMAN, ELY, REICHERT, DILLON, PALMER, SCARBOROUGH, and STAFF) Daily 8:30–11:30
*First semester, 25; second semester, 24*

**207. Ward Rounds and Ward Work: San Francisco Hospital.**
90 hours (Gynecology, 30 hours) for 8 weeks (Eloesser, Towne, Butler, Howard, and staff) Daily 8:30–11:30
*First semester, 25; second semester, 25*

**208. Set Clinic: San Francisco Hospital.**—One-half the class.
1½ hours (24 hours) (Eloesser) Th 8:30–10:00
*First semester, 25; second semester, 25*

**209. Clinic on Hospital Patients.**—One-half the class.
1 hour (16 hours) (Holman, Ely, Reichert, Dillon) (Lane Hospital, Surgical Amphitheater) F 11:30–12:30
*First semester, 25; second semester, 24*

**210. General Surgical Pathology and Diagnosis.**—Current material will be utilized as much as possible.
1 hour (31 hours), autumn, winter, and spring quarters (Nagel) (Room 506) T 2:30–3:30
*Autumn, 50; winter, 50; spring, 49*

**211. Clinic on Patients from Surgical Dispensaries.**—One-half the class.
1 hour weekly throughout the year (Nagel, in Surgery) (Lane Hall) S 11:30–12:30
*First semester, 25; second semester, 24*

REQUIRED COURSES FOR FOURTH-YEAR STUDENTS

For purposes of dispensary instruction, the fourth-year class will be divided into eight sections of about six students each. These sections will serve daily in the following dispensary clinics: General Medicine, 8 weeks; General Surgery, 4 weeks; Gynecology and Obstetrics, 4 weeks; Pediatrics, 4 weeks; Neurology, 4 weeks; Orthopedics, 2 weeks; Dermatology, 4 weeks; Urology, 2 weeks; Ophthalmology, 4 weeks; Otology, 4 weeks.

**209. Clinic on Hospital Patients.**
1 hour weekly throughout the year (31 hours) (Holman, Ely, Reichert, Dillon) (Surgical Amphitheater) F 11:30–12:30
*First semester, 43; second semester, 43*

**211. Clinic on Patients from Surgical Dispensaries.**
1 hour weekly throughout the year (Nagel, in Surgery) (Lane Hall) S 11:30–12:30
*First semester, 43; second semester, 43*

**212. Urology.**—Lectures.
1 hour (10 hours), autumn quarter (Dillon) (Room 311) T 8:30–9:30
*Autumn, 43*

**213. Surgical Dispensary.**
2 hours (48 hours) for 4 weeks (Gilman, Reichert, Brooks, Nagel, and staff) Daily 9:30–11:30
*First semester, 20; second semester, 23*

**214. Orthopedic Dispensary.**
2 hours (24 hours) for 2 weeks (Ely, Fisher, and staff) Daily 9:30–11:30
*First semester, 21; second semester, 22*

**215. Urological Dispensary.**
2 hours (24 hours) for 4 weeks (Dillon, Kreutzmann, Henderson, and staff) Daily 9:30–11:30
*First semester, 21; second semester, 22*

**216. Ophthalmology.**
Lecture 1 hour (31 hours), autumn, winter, and spring quarters (Barkan) (Lane Hall) T 1:30–2:30
*Autumn, 44; winter, 44; spring, 44*

*Out-Patient Instruction.*—2 hours (except Monday and Saturday).
32 hours for 4 weeks (Swett, Rodin, and staff) (Dispensary) TWThF 2:30–4:30
*First semester, 23; second semester, 21*

**217. Otology, Rhinology, and Laryngology.**
Lecture 1 hour (31 hours), autumn, winter, and spring quarters (SEWALL) (Lane Hall) Th 1:30–2:30
*Autumn, 44; winter, 44; spring, 44*

*Out-Patient Instruction.*—2 hours (Tuesday, Wednesday, and Thursday).
24 hours for 4 weeks (BACHER, MCNAUGHT, and STAFF) (Dispensary) TWTh 2:30–4:30
*First semester, 24; second semester, 20*

ELECTIVE COURSES

**218. Surgical Anatomy.**
1 hour (10 hours), autumn, winter, and spring quarters (SCARBOROUGH) (Anatomical Amphitheater) Th 3:30–4:30
*Autumn, 38; winter, 29; spring, 19*

**219. Surgical Ward Rounds.**—Limited to 15 students.
5 hours (20 hours) for 4 or 8 weeks (Lane Hospital) Daily 8:30–9:30
*First semester, 35; second semester, 28*

**220. Research Laboratory.**—Limited to two students at a time.
(20 or 40 hours) for 4 or 8 weeks (HOLMAN, REICHERT) By arrangement
*Winter, 1; spring, 2*

**221. Emergency Surgery.**—Limited to six students. The student is assigned to one of the emergency hospitals for duty during certain hours of the day. He assists the resident medical officer in caring for patients admitted for treatment. This includes instruction in minor as well as major emergency procedures, more particularly fractures.
2 hours (40 or 80 hours) for 4 or 8 weeks (BUTLER) Daily in afternoon
*Autumn, 25; winter, 5*

**222. Anaesthesia.**—Limited to two students at a time.
(20 or 40 hours) for 4 or 8 weeks (PALMER) By arrangement

**223. Special Dispensary Work.**—This work may be undertaken in any one of the surgical specialties including otolaryngology, ophthalmology, urology, and orthopedics.
Hours to be arranged

**224. Library Walks.**—An association with the old masters is obtained by a review of original works in the Lane Historical Library.
1 hour (10 hours) (REICHERT) T 3:30–4:30
*Winter, 1*

## PRE-NURSING CURRICULUM

The Pre-Nursing Curriculum is designed primarily for those who wish to prepare themselves for administrative, teaching, social service, or public-health work. The curriculum consists of three years' work at Stanford University, and two years' work at the Stanford School of Nursing, San Francisco, the degree of Bachelor of Arts and the Nursing Diploma being conferred at the close of five years. The completion of 135 units of University work of an average grade of C is necessary before the student may enter the School of Nursing. The requirements for admission are the same as for other courses in the University.

## CURRICULUM

### First Year

| Autumn Quarter Subject | Units | Winter Quarter Subject | Units | Spring Quarter Subject | Units |
|---|---|---|---|---|---|
| Citizenship | 4 | Citizenship | 4 | Citizenship | 4 |
| *Chemistry 10 | 4 | Chemistry 11 | 4 | Chemistry 12 | 4 |
| Language | 3 | Language | 3 | Language | 3 |
| Electives | 4 | Electives | 4 | Electives | 4 |

### Second Year

| | | | | | |
|---|---|---|---|---|---|
| Language or Literature | 3 | English 2 | 3 | English 2 | 3 |
| History | 3 | History | 3 | History | 3 |
| **Biology 1 | 5 | **Biology 2 | 4 | Anatomy 112 (Embry.) | 5 |
| Electives | 4 | Electives | 5 | Electives | 4 |

### Third Year

| | | | | | |
|---|---|---|---|---|---|
| Physiology 101 | 5 | Physiology 102 | 5 | Bacteriology 100 | 5 |
| Psychology 51 | 5 | Anatomy 120 | 5 | Electives | 10 |
| Electives | 5 | Electives | 5 | | |

This schedule presupposes entrance credit of 2 units in a foreign language, 1 unit in Chemistry, and 1 unit in History.

*Students offering no entrance credit in Chemistry will take Courses 1, 2, and 3.

** Students having entrance credit in a biological science are advised to take Zoölogy 1 and 2 (Comparative Anatomy) autumn and winter quarters, respectively.

Some suggested electives are: Economics 2 (Elementary Sociology); Economics 101 (Labor Problems); Economics 112 (Social Processes); Economics 114 (Social Problems); Economics 116 (Immigration); Physical Education 1a (Personal Hygiene); Political Science 1 (Introduction); Political Science 2 (State and Local Government); Psychology 55 (Experimental Psychology); Psychology 160 (Abnormal Psychology); Public Speaking 4 (Principles of Vocal Expression); Public Speaking 5 (Reading Aloud).

The degree of Bachelor of Arts in Pre-Nursing is given only for the five years' combined University and Nursing course. Students who wish to take the degree of Bachelor of Arts before transferring to the School of Nursing should register in one of the major departments of the University. By careful planning it is possible to fulfill both the requirements for the Bachelor's degree in the major department, and those of the Pre-Nursing curriculum.

Pre-Nursing students entering with advanced standing from other universities are required to take a minimum of 45 units of resident work at Stanford University. This minimum of 45 units presupposes a residence of three University quarters. The completion of the collegiate part of the Pre-Nursing Course in this minimum of time before entering the School of Nursing is possible for only those students who, before transferring to the University, have fulfilled the requirements of the first six quarters of the curriculum, including those of the Lower Division.

Graduates of schools of nursing affiliated with an institution of collegiate rank may be granted, on recommendation of the Pre-Nursing Committee, a maximum advanced credit of 45 units, provided they have also fulfilled the requirements for admission to the University. To qualify for the degree of Bachelor of Arts, graduates of schools of nursing admitted to advanced standing will be required to fulfill both the Lower Division requirements and those of the major department in which they ultimately register. (For details of requirements see pages 166–167, and the departmental announcements in this bulletin.)

Students interested in this course should confer with the Dean of Women, Stanford University, or with the Superintendent of Nurses, Stanford University Hospital, San Francisco.

# MEMORIAL CHURCH

The Reverend David Charles Gardner, D.D., Chaplain
Warren D. Allen, Organist

Memorial Church stands in the center of the inner quadrangle group, facing the main entrance. It is of modified Moorish-Romanesque architecture, in the form of a cross with rounded ends. The extreme length is one hundred and ninety feet, the extreme width, one hundred and fifty feet. The exterior finish is like that of the other quadrangle buildings except for the mosaics of the façade, the central feature being a striking representation of the Sermon on the Mount. The interior walls are buff sandstone, with tooled face, relieved by elaborate carved designs and fifteenth-century mosaics of great beauty. The features of the apse are the marble altar, the stained glass windows representing the Nativity, the Crucifixion, and the Ascension, and the mosaics covering the wall surface. Behind the altar is a replica of Cosimo Rosselli's Last Supper, from the Sistine Chapel at Rome. To the right and left, running to the arch of the apse, are long panels, a *gloria dei angeli* surmounted by reproductions in mosaic of Michelangelo's Prophets. The cove ceiling is also done in mosaics representing angels with trumpets. The nineteen stained glass windows of nave, transept, and apse illustrate the Life of Christ. The windows of the clerestory contain single figures of Old and New Testament characters, and the mosaics depict mostly Old Testament scenes. The seating capacity of the church, including galleries, is about eighteen hundred.

Memorial Church is unsectarian and without formal organization, but linked to historic Christianity by its ministry and sacraments. The services are informal and varied, conserving the great principles of Christian worship.

## SERVICES

Divine Worship and Sermon, Sunday, 11 A.M.
(Holy Communion as announced.)

## ORGAN RECITALS

Sunday, 4 P.M.; Tuesday, 4:15 P.M.; Thursday, 4:15 P.M.

# MUSIC

WARREN D. ALLEN, Organist, Lecturer in Music, and Director of the University Choir

ERNEST WHITNEY MARTIN, Professor of Classical Literature, and Director of the University Band

**1. Choir.**—The choir sings at the morning service each Sunday in Memorial Church, the music consisting of anthem, chants, and hymns. Continuous course until end of year.

1 unit per quarter (ALLEN) (Memorial Church) Rehearsal Th 7:35 P.M.
*Autumn, 48; winter, 43; spring, 40; summer, 18*

**2. Oratorio.**—A separate choir, formed for the performance of oratorio and other major choral works.

1 unit per quarter (ALLEN) (Memorial Church) Rehearsal Th 8:20 P.M.
*Autumn, 49*

**4. Military Band.**

1 unit, autumn quarter (MARTIN) (Bandhouse) TTh 4:15–5:15
*Autumn, 83; winter, 67; spring, 66*

**5. Concert Band.**

1 unit, winter and spring quarters (MARTIN) (Bandhouse) [Not given in 1930–31]

# SCHOOL OF PHYSICAL SCIENCES

Carl Lucas Alsberg, Eliot Blackwelder, Hans Frederik Blichfeldt, James William McBain, David Locke Webster (*Chairman), Executive Committee*

The School of Physical Sciences consists of the departments of Chemistry, Geology, Mathematics, and Physics. Its faculty includes all members of these departments and certain professors of Biology, Engineering, Medicine, and Philosophy whose work is related to the physical sciences.

Programs of study are offered by the individual departments leading to degrees in their respective sciences. For the Bachelor's degree these programs are supplemented by a general program offered by the School leading to the degree of Bachelor of Arts in the Physical Sciences. Each candidate for the degree of Bachelor of Arts in the Physical Sciences will be required to take forty-five units of work in the physical sciences while he is registered in the Upper Division, and to have or acquire a reading knowledge of French or German. His program of study must be approved by a special adviser appointed by the Executive Committee of the School of Physical Sciences. It is the policy of the faculty of the School that such programs of study must consist largely of advanced work.

**1–3. Introduction to the Physical Sciences.**—Lectures on the more important aspects of astronomy, geology, physics, and chemistry. The course is not designed to prepare students for advanced work in these subjects, but to show them the nature of the field covered and to enable them to appreciate in some degree the influence these rapidly advancing sciences have on modern life. Although the course is continuous through the year, any quarter may be taken separately. High-school physics and chemistry are not prerequisites, but are desirable.

*1.* The principal features of astronomy and geology will be covered briefly in this section of the course, which is not open to students having credit in Elementary Geology.

3 units, autumn quarter (Davis) MWF 8
*Autumn, 92*

*2.* Lectures and demonstrations in mechanics, heat, light, sound, electricity, inorganic chemistry, and modern physics, with particular emphasis on modern theories of atomic structure. This course not open to students having credit in Physics 25 or 101 or 103.

3 units, winter quarter (Brown) MWF 8
*Winter, 35*

*3.* Discussion of the philosophical aspects of the physical sciences and their relation to other branches of learning.

3 units, spring quarter (Young, Blair) MWF 8
*Spring, 44*

# CHEMISTRY

EDWARD CURTIS FRANKLIN, Professor Emeritus

ROBERT ECKLES SWAIN, JAMES WILLIAM MCBAIN, §STEWART WOODFORD YOUNG, Professors
CARL LUCAS ALSBERG, Director, Food Research Institute
JOHN PEARCE MITCHELL, Registrar of the University
NATHAN VAN PATTEN, Director of University Libraries
GEORGE SUTTON PARKS, WILLIAM HENRY SLOAN, Associate Professors
VICTOR KUHN LAMER (Columbia University), Acting Associate Professor (Spring Quarter)
FRANCIS WILLIAM BERGSTROM, MAURICE LOYAL HUGGINS, PHILIP ALBERT LEIGHTON, JAMES MURRAY LUCK, CARL ROBERT NOLLER, Assistant Professors
OTTO OLIVE WATTS, Acting Assistant Professor (Summer Quarter)
EVELYN MCBAIN, Research Associate
ROBERT DUBOIS, PIERRE J. VAN RYSSELBERGHE, Instructors
JULIAN MACFARLANE BLAIR, HUGH MARTIN HUFFMAN, Acting Instructors (Spring Quarter)
ELOISE JAMISON, MARGARET DEERING MCDOWELL, Junior Research Associates

## ENTRANCE PREPARATION

Students who intend to major in chemistry are advised to offer entrance credit in the preparatory subjects of chemistry, physics, mathematics (including trigonometry and solid geometry), and German (two units). Those who do not have entrance credit or equivalent training in the foregoing subjects may experience some difficulty, especially in the engineering chemistry course, in meeting the departmental requirements for graduation in the usual time.

## REQUIREMENTS FOR GRADUATION

Candidates for graduation in chemistry must offer the equivalent of two years (at least 22 units) of college work in German, or two years of French and one year of German. Whenever possible, this foreign language should be completed before the Upper Division work is begun.

Major students should complete the courses listed under one of the following curricula to meet the requirements for the degree of Bachelor of Arts in Chemistry. Whenever this is possible, the courses listed in each of these curricula for the first and second years should be completed before the work of the Upper Division is undertaken. Failure to meet fully these requirements may lead to difficulties in the last two years.

### A. General Chemistry

[Recommended for those who are pursuing work in chemistry particularly as a basis for teaching and scientific research.]

*First and Second Years.*—Lower Division requirements, including Chemistry 10, 11, 12; or 1, 2, 3, 4, 20; or 1, 2, 3, 12; Physics 33, 34, 35, 36 (or 21, 22, 23, 24), and 101 (at least 12 units); Mathematics 10, 11, 21, and 22 (23 also advised), or their equivalent; and German.

§ Deceased, April 9, 1931.

*Third and Fourth Years.*—Chemistry 111, 112, 121, 122, 123, 125, 130, 171, 173, 175, and 190 (at least 3 units).

### B. Biological Chemistry

[Particularly adapted to students who are looking forward to work along medical or biochemical lines.]

*First and Second Years.*—Lower Division requirements, including Chemistry 10, 11, 12; or 1, 2, 3, 4, 20; or 1, 2, 3, 12; Physics 33, 34, 35, 36 (or 21, 22, 23, 24), and 101 (at least 12 units); Mathematics 10, 11, and 21, or their equivalent; and German.

*Third and Fourth Years.*—Chemistry 111, 112, 121, 122, 123, 125, 130, 141, 142, 143, 144, and 190 (at least 3 units); Physiology 103.

### C. Engineering Chemistry

[Intended especially for students who desire to fit themselves for positions of responsibility in connection with work in industries involving chemical knowledge and skill. This curriculum comprises the undergraduate work preparatory to the advanced degree of Engineer in Engineering Chemistry, which is awarded at present upon the completion of one year of graduate work.]

*First and Second Years.*—Lower Division requirements, including Chemistry 10, 11, and 12; or 1, 2, 3, 4, 20; or 1, 2, 3, 12; Physics 33, 34, 35, 36 (or 21, 22, 23, 24), and 101 (at least 12 units); Mathematics 10, 11, 21, 22, and 23; Engineering 2, 3, and 99; and German.

*Third and Fourth Years.*—Chemistry 111, 112, 114, 121, 122, 123, 125, 130, 171, 173, and 175; Civil Engineering 100, 106, and 110; Physics 33, 34, 35, and 36; Mechanical Engineering 10 and 11 or 12.

## THE TEACHER'S RECOMMENDATION

The minimum requirements for recommendation to teach chemistry in the high school are given below. Additional work will be required of all students whose records are not entirely satisfactory. Students who have done their work in Chemistry elsewhere may be required to take one or more advanced courses here in order that the department faculty may have personal knowledge of their training and other qualifications. The extent and character of the additional work required will vary with individual cases. The following courses cover respectively the minimum minor and major requirements for students who have taken one year of chemistry in the high school and have passed the departmental placement examination for admission to Course 10 in General Chemistry. Students who do not qualify for admission to Course 10 must take Courses 1, 2, 3, and either 4 and 20 (18 units) or 12 (16 units) instead of Courses 10, 11, and 12 (12 units). Course 130 (Physical Chemistry Laboratory) may be substituted for Course 122 (Organic Chemistry Laboratory).

*a*) To teach chemistry as a minor high-school subject: Courses 10, 11, and 12 (General Chemistry); 121, 123, and 125 (Organic Chemistry). Total 21 units.

*b*) To teach chemistry as a major high-school subject: Courses 10, 11, and 12 (General Chemistry); 111 and 112 (Quantitative Analysis); 121, 122, 123, 125 (Organic Chemistry). Elective, 5 units of Upper Division work. Total 36 units.

## ADVANCED DEGREES

After October 1, 1931, the degree of Engineer in engineering chemistry will be conferred only on those candidates who have completed two years of graduate work in addition to the requirements for the degree of Bachelor of Arts as given under Curriculum C.

Prior to October 1, 1931, this degree will be awarded upon the completion, in addition to the requirements for the degree of Bachelor of Arts in engineering chemistry, of three quarters of graduate work. This work shall include a thesis based on laboratory work and, in addition to other selected graduate courses in chemistry, at least eight units of advanced work in engineering.

Applicants for the degree of Master of Arts in chemistry will be expected to complete, in addition to the requirements for the Bachelor's degree, the equivalent of forty-five units of work in the University, of which approximately two-thirds must be in the department. This work will include a thesis based on laboratory work. Courses 171, 173, and 175 must also be taken if these were not included in the undergraduate work. Bacteriology 100, or 101, or 201 must also be taken by all students who are taking an advanced degree in the division of biochemistry.

Candidates for the degree of Doctor of Philosophy in chemistry will follow such courses as are approved by the department faculty, subject to general University regulations.

In addition to the general requirements laid down by the University Committee on Graduate Study, each candidate for the degree of Doctor of Philosophy in chemistry is required to take the preliminary qualifying examination in the Department of Chemistry during his first quarter of study for the Doctorate. This is a written examination of approximately eight hours' duration which is given during the first half of each quarter. In general it covers the fields of inorganic, organic, and physical chemistry, general physics and elementary mathematics (including calculus). In the special case of students proceeding to their Doctorate in the biochemistry division, questions in biochemistry and biology will be substituted to some extent for those in physical chemistry, physics, and mathematics.

It is the policy of the department to encourage and support in every possible way the pursuit of research and of other work along advanced lines by students whose interest and training quality them for undertaking it. A list of the published papers, and other information in regard to the research work carried on in the department during the past academic year, will be sent upon application.

## FELLOWSHIPS AND SCHOLARSHIPS

In addition to the University fellowships and scholarships which are open to properly qualified students, there are at present seven departmental fellowships in chemistry: three teaching fellowships, the Edward Curtis Franklin Fellowship, the Shell Development Company Fellowship, the duPont Fellowship, and the McCallum Fellowship. These are open only to graduate students. The John Maxson Stillman Scholarship and the Henry Windt Junior Memorial Scholarship are open to graduates and undergraduates. Holders of teaching fellowships are expected to devote approximately twelve actual hours per week to assistance in teaching. There are also several teaching assistantships open to advanced students.

COURSES OF INSTRUCTION

**General Chemistry.**—A systematic treatment of chemical principles and their applications. Open to all students. Courses 1, 2, and 3 are designed for students who have not taken chemistry in the high school or whose previous training is not adequate to admit them to Course 10. Courses 10, 11, and 12 cover the same general field more thoroughly. Students registering for General Chemistry who have had previous training in chemistry will register for Course 10 at the opening of the autumn quarter; others will register for Course 1. A readjustment of students between Courses 10 and 1 will be made immediately after the mid-quarter examination.

**1. General Chemistry.**—For students who have had no chemistry. Only 3 units of credit are given to students who have entrance credit in chemistry.
4 units, autumn quarter (MITCHELL, LEIGHTON)
Lec. MW 8; Lab. and recitation MT or WTh 1:05–4:05, or F 1:05–4:05 and S 9–12
4 units, *summer quarter (WATTS) Lec. MTWTh 8; Lab. MTWTh 1:05–4:05
*Autumn, 192 (2 sections); summer, 7*

**2. General Chemistry.**—Continuation of Chemistry 1.
4 units, winter quarter (MITCHELL, LEIGHTON)
Lec. MW 8; Lab. and recitation MT or WTh 1:05–4:05, or F 1:05–4:05 and S 9–12
4 units, *summer quarter (WATTS) Lec. MTWTh 8; Lab. MTWTh 1:05–4:05
*Winter, 183; summer, 5*

**3. General Chemistry.**—Continuation of Chemistry 2.
4 units, spring quarter (MITCHELL, LEIGHTON)
Lec. MW 8; Lab. and recitation MT or WTh 1:05–4:05, or F 1:05–4:05 and S 9–12
*Spring, 153*

**4. General Chemistry.**—Continuation of Chemistry 3.
3 units, autumn quarter (DUBOIS) MWF 9
*Autumn, 62*

**10. General Chemistry.**—For students who have had some previous training in chemistry.
4 units, autumn quarter (MCBAIN, HUGGINS, DUBOIS, VAN RYSSELBERGHE)
Lec. TTh 8; Lab. and recitation MT or WTh 1:05–4:05, or F 1:05–4:05 and S 9–12
*Autumn, 118*

**11. General Chemistry.**—Continuation of Chemistry 10.
4 units, winter quarter (MCBAIN, HUGGINS, DUBOIS)
Lec. TTh 8; Lab. and recitation MT or WTh 1:05–4:05
*Winter, 113*

**12. General Chemistry.**—Continuation of Chemistry 11.
4 units, spring quarter (MCBAIN, HUGGINS, DUBOIS, VAN RYSSELBERGHE)
Lec. TTh 8; Lab. and recitation MT or WTh 1:05–4:05
*Spring, 103*

**20. Qualitative Analysis.**—Open to students who have completed Course 3. This course is required of chemistry majors who have not completed Course 12, or its equivalent.
3 units, winter quarter (VAN RYSSELBERGHE) WThF 1:05–4:05
*Winter, 9*

**111. Quantitative Analysis.**—Lecture course. Must be taken in conjunction with Course 112.
1 unit, autumn, *winter, and *spring quarters (SLOAN) TTh 1:05
*Autumn, 41; winter, 40; spring, 22*

**112. Quantitative Analysis.**—Introductory. Training in manipulation in gravimetric and volumetric methods. Open to students who have completed Course 12 or 4 or 20. Not open to first-year students. Given in conjunction

with Course 111. Five units required of all chemistry majors. Class limited to 36.
4 or 5 units, autumn, *winter, and *spring quarters (SLOAN) 4 or 5 afternoons
*Autumn, 39; winter, 35; spring, 22*

**114. Quantitative Analysis.**—A continuation of Course 112, principally gravimetric methods.
5 units, autumn, *winter, and *spring quarters (SLOAN) 5 afternoons
*Autumn, 7; winter, 5; spring, 1*

**121. Organic Chemistry.**—Lectures and reviews on the chemistry of carbon compounds. Open to students who have completed Course 12 or 4 or 20.
3 units, autumn and *summer (first term) quarters (BERGSTROM)
(autumn) MWF 11; (summer) MTWThFS 8
*Autumn, 123; summer, 21*

**122. Organic Preparations.**—Preparation and study of typical carbon compounds. Open in connection with Courses 121, 123, and 125 to students who have completed Course 12 or 4 or 20.
5 units, winter quarter (BERGSTROM)
5 units, *spring quarter (NOLLER) 5 afternoons
*Winter, 18; spring, 5*

**123. Organic Chemistry.**—Continuation of Chemistry 121.
3 units, winter quarter (NOLLER) MWF 11
3 units, summer quarter (last four weeks) (BERGSTROM) MTWThFS 8
*Winter, 103; summer, 26*

**124. Quantitative Organic Analysis.**—Training in the quantitative determination of the elements and radicals in organic compounds.
2 units, autumn quarter (NOLLER) MT 1:05–4:05
*Autumn, 7*

**125. Organic Chemistry.**—Continuation of Chemistry 123.
3 units, spring quarter (NOLLER) MWF 11
*Spring, 43*

**126. Qualitative Organic Analysis.**—A lecture and laboratory course dealing with the classification, reactions, and identification of organic compounds.
3 units, autumn quarter (NOLLER) WThF 1:05–4:05
*Autumn, 10*

**128. Organic Chemistry.**—A laboratory course designed especially to accompany Courses 121 and 123. Offered particularly for students in biology and medicine. Not for chemistry majors.
3 units, winter and *summer quarters (BERGSTROM) MWF 1:05–4:05
3 units, *spring quarter (NOLLER) MWF 1:05–4:05
*Winter, 20; spring, 7; summer, 17*

**129. The Theories of Organic Chemistry.**—A discussion of some of the more recent theories in this field. Prerequisite: Chemistry 125.
2 units, autumn quarter (BERGSTROM) MW 9
*Autumn, 10*

**130. Physical Chemical Measurements.**—Exercises in the practice of physical-chemistry laboratory methods. Open to students who have completed Chemistry 112 and Physics 23 and 24, or 35 and 36.
3 units, winter and *spring quarters (PARKS, HUFFMAN) MWF 1:05–4:05
*Winter, 12; spring, 16*

**132. Glass Blowing.**—Elementary training in the manipulation of glass.
1 or 2 units, winter quarter (BERGSTROM) TTh 1:05–4:05
*Winter, 8*

**136. Sanitary Chemistry.**—Designed for engineers and public health students. A study of the standard methods of water and sewage analysis and the interpretation of results. Some of the more common food determinations

are discussed. One lecture, two laboratory periods a week. Prerequisite: General Chemistry.
3 units, autumn quarter (Beard) Lec. W 9; Lab. F 1:05–4:05, S 9–12
*Autumn, 3*

**141. Biochemistry.**—Lectures on the carbohydrates, lipins, proteins, constituents of blood and urine and the principal tissues and secretions of the animal body. Enzymes, the colloidal state, and biological oxidations, and reductions are also studied. Open to students who have completed Course 123.
2 units, autumn quarter (Luck) TTh 8
*Autumn, 80*

**142. Biochemistry.**—An introductory laboratory course designed to accompany Course 141, consisting of a qualitative and quantitative study of the carbohydrates, lipins, and proteins, of the constituents of blood, urine, and the chief tissues of the animal body. The mode of action of enzymes, the colloidal state, digestion, and biological oxidations are also studied. Prerequisites: Courses 123, 111, and 112.
2 or 3 units, autumn quarter (Luck) MTW or WThF 1:05–4:05
*Autumn, 70*

**143. Biochemistry.**—Continuation of Course 141, with particular reference to such topics as the nutrition, metabolism, and the waste products of the human organism.
2 units, winter quarter (Luck) TTh 8
*Winter, 61*

**144. Biochemistry.**—Continuation of Course 142. The work of this course is devoted chiefly to the quantitative analysis of blood and urine.
2 or 3 units, winter quarter (Luck) MTW or WThF 1:05–4:05
*Winter, 57*

**151. Advanced Inorganic Chemistry.**—Advanced topics in inorganic chemistry, including the rarer elements, radioactivity, catalysis, and the chemistry of the higher order compounds.
1 unit, spring quarter (DuBois) F 9
*Spring, 15*

**153. Catalysis.**—Lectures on theory of reaction velocity including neutral salt catalysis, chain reactions, with applications to special industrial problems.
2 units, spring quarter (La Mer) MW 9
*Spring, 23*

**171. Physical Chemistry.**—A lecture and problem course dealing with the elements of physical chemistry. Open to students who have completed Chemistry 111, 112, 121, Physics 21, 22, 23, 24, and 101 (or their equivalent), and Mathematics 10, 11, 21, and 22 (or their equivalent).
3 units, autumn quarter (Parks) MWF 8
*Autumn, 40*

**173. Physical Chemistry.**—Continuation of Chemistry 171, with special emphasis upon the application of thermodynamics to chemistry.
3 units, winter and *summer quarters (Parks) MWF 8, 9
*Winter, 37; summer, 6*

**175. Physical Chemistry.**—Continuation of Chemistry 173, dealing especially with the phase rule and electrochemistry.
3 units, spring quarter (La Mer) MWF 8
*Spring, 30*

**180. Chemical Literature and Libraries.**—The use of chemical literature in research with special consideration of the various abstracts, indexes, bibliographies and reference works as well as the cataloging and classification of

material in general and special libraries. Some attention will be given to the historical development of the subject.
3 units, autumn quarter (Van Patten) WThF 4:05
*Autumn, 10*

**190. Introduction to Methods of Investigation.**—For general character and scope, see under Course 200. Primarily for advanced undergraduates. A minimum of 3 units is required.
(Department Staff) By arrangement
*Autumn, 6; winter, 8; spring, 18; summer, 5*

**200. Research and Special Advanced Work.**—Properly qualified students are encouraged to undertake work of research, or other advanced laboratory work along lines not covered by the courses already listed, under the direction of any member of the teaching staff with whom arrangement is made.

For all such research and special work students will register for Course 200 (or Course 190 if in undergraduate standing) giving the name of the member of the staff under whom the work is carried on and the number of units agreed upon.
(Department Staff) By arrangement
*Autumn, 48; winter, 45; spring, 34; summer, 10*

**203. The Laws and Concepts of Modern Science.**—A critical analysis of the origin and development of the fundamental principles of modern science. Designed primarily for graduate students intending to devote themselves to pure scientific research and teaching, but open to any with sufficient training in science. Lectures, consultations, and reading.
3 units, autumn quarter (Young) MWF 9
*Autumn, 15*

**205. The Laws and Concepts of Modern Science.**—Continuation of Course 203.
3 units, winter quarter (Young) MWF 9
*Winter, 23*

**209. Photochemistry.**—Lectures on the nature, theories, and applications of the action of radiation in chemistry.
2 units, winter quarter (Leighton) TTh 9
*Winter, 20*

**211. Department Seminar in Chemistry.**—Discussion of recent advances in chemistry. Open to graduate students and to advanced undergraduates in chemistry with the approval of the faculty in chemistry.
1 unit, autumn, winter, spring, and summer quarters (Department Staff) M 4:10–5:30
*Autumn, 46; winter, 33; spring, 37; summer, 9*

**213. The Ammonia System of Compounds.**—Experimental lectures on compounds related to ammonia as the familiar oxygen acids, bases, salts, etc., are related to water. This includes the chemistry of organic nitrogen compounds. Open to students who have completed Course 123.
3 units, winter quarter (Bergstrom) MWF 8
*Winter, 19*

**214. Organic Reactions.**—Lectures on the applications and limitations of organic reactions with particular reference to organic synthesis.
2 units, autumn quarter (Noller) TTh 9
*Autumn, 30*

**216. Organic Reactions.**—A continuation of Chemistry 214.
2 units, winter quarter (Noller) TTh 10
*Winter, 17*

**217. The Structures of Atoms and Molecules.**—Prerequisites: Chemistry 12 or 4 and Physics 101 or 103.
2 units, winter quarter (HUGGINS) MW10
*Winter, 6*

**221. Sorption.**—Lectures dealing with sorption, adsorption, and the chemistry of surfaces.
2 units, autumn quarter (MCBAIN) TTh 11
*Autumn, 36*

**223. Colloids.**—Lectures dealing with the main principles of colloid science.
2 units, winter quarter (MCBAIN) TTh 11
*Winter, 40*

**225. Colloids and Surface Phenomena.**—A reading and discussion course dealing with selected topics. Open to graduate students only.
1 unit, spring quarter (MCBAIN) W 11
*Spring, 17*

**231. Biochemistry.**—A review of recent contributions to the chemistry and metabolism of carbohydrates, lipins, and proteins, a consideration of the newer aspects of nutrition, enzymes, internal secretions, the inorganic constituents of the organism, biological oxidations, and chemotherapy.
2 units, spring quarter (LUCK) TTh 11
*Spring, 10*

**237. Statistical Mechanics in Its Applications to Chemistry.**
2 units, autumn quarter (VAN RYSSELBERGHE) WF 11
*Autumn, 7*

**239. Wave Mechanics and Its Chemical Application.**—An outline of the deBroglie-Schrödinger theory; its applications to the hydrogen atom, the hydrogen molecule, and various problems of chemical structure.
2 units, winter quarter (VAN RYSSELBERGHE) WF 11
*Winter, 4*

**261. Seminar in Chemophysical Biology.**—[See also Biology 261 and Physics 261.]
Autumn, winter, and spring quarters (CLARK, LUCK, BAUMBERGER) Th 4
*Autumn, 5; winter, 4; spring, 6*

[**Crystallography.**—An elementary course covering as far as possible the entire field of crystallography. The course includes (*a*) a study of the geometrical properties of crystals with practice in measurement and drawing; (*b*) the description of crystal structures and their determination from X-ray experimental data; (*c*) a brief survey of the optical properties of crystals with emphasis on the use of the polarizing microscope; (*d*) selected topics in chemical crystallography. Prerequisites: Chemistry 12 or 4. Mechanical Engineering 10 (Descriptive Geometry) and Physics 111 (Light) are recommended. (See Geology 125.)]
5 units, autumn quarter (ROGERS, HUGGINS)
Lec. TTh 11 and one hour by arrangement; Lab. MT 1:05–4:05
*Autumn, 2*

*Laboratory Fees.*—A charge of $15 per quarter ($5 of which is returnable less bills for breakage and loss of apparatus) is made to students in Courses 1, 2, 3, 10, 11, 12; for 3-unit laboratory courses, the fee is $20 per quarter (of which $10 is returnable); for 4-unit laboratory courses, the fee is $25 per quarter (of which $12.50 is returnable); and for all other laboratory courses the fee is $30 per quarter (of which $15 is returnable less bills for breakage and loss of apparatus).

Courses 142 and 144, two units each, carry a deposit of $15, of which $5 is returnable; for three units, a deposit of $20 of which $7.50 is returnable.

## GEOLOGY

§James Perrin Smith, Bailey Willis, Professors Emeritus

Eliot Blackwelder, Austin Flint Rogers, Cyrus Fisher Tolman, Professors
Solon Shedd, Curator of the Branner Library
Siemon William Muller, Hubert Gregory Schenck, Assistant Professors
Paul Francis Kerr, Acting Assistant Professor (Summer Quarter)
Aaron Clement Waters, Instructor
William Morris Davis, Lecturer (Autumn and Spring Quarters)
William Clement Putnam, Acting Instructor (Winter Quarter)
George Leroy Green, Ward Conwell Smith, Loring Bertram Sneden, Acting Instructors (Summer Quarter)
Joseph D. H. Donnay, Research Associate, and Teaching Fellow in Mineralogy
Homer Widmann, Assistant in Instruction

[With the co-operation of Professor Huggins of the Department of Chemistry.]

The department offers instruction in the science of geology and training in preparation for the profession of geologist, including mining geologist, oil geologist, mineralogist, and paleontologist. At present the fields of work generally open to graduates of the department are those of university teaching and research, state and federal geological surveys, and technical geology in the service of mining, petroleum, and other industries.

*Graduation.*—For the degree of Bachelor of Arts in geology, sixty units in the department are ordinarily required. The substitution of courses in closely related departments, which are of definite value in geology, may be accepted by the department committee.

Courses which should be completed before admission to the Upper Division, in order that the department requirements for the degree of Bachelor of Arts may be satisfied within two years, are as follows:

Chemistry 1, 2, 3 (or 10, 11, 12), 20; Physics 21, 22; Mathematics A, B; Engineering 2, 3; German or French (two years). A first course in geology and mineralogy may well be included. (Physical Sciences 1 gives a brief survey of geology, but is not credited as part of the work of the Geology Department.)

The courses offered in the Department of Geology are grouped as follows: (*a*) Geology, (*b*) Mineralogy and Petrography, (*c*) Paleontology and Stratigraphy, (*d*) Economic Geology. The following courses are generally required of all major students: Geology 1 or 1*a*, 101, 102, 108, 109, and 121; Engineering 2 and 3; Mechanical Engineering 10, or equivalent; Physics 21, 22; Chemistry, through Qualitative Analysis; two years of German or French. In addition, it should be noted that Civil Engineering 20 is a prerequisite for Geology 108 and 109.

Other requirements suited to the individual case will be fixed by the student's faculty adviser. For those who specialize in paleontology such requirements will be largely biological; for those looking toward economic geology, chemistry, physics, mineralogy, petrography, and mining may be needed; and for mineralogy the chief needs would be more chemistry and

§ Deceased, January 1, 1931.

physics. In general, advanced courses should be selected only after consultation with the instructor concerned.

*Advanced Work.*—Under modern conditions the preparation represented by the degree of Bachelor of Arts is inadequate for the profession of geologist. Hence there is a growing tendency for students to take at least an additional year, leading to the degree of Master of Arts. This fifth year includes not only formal courses but some original investigation. Requirements for the degree of Doctor of Philosophy are of a different character, as explained on pages 171–173.

Graduate work is offered in physical and dynamical geology, including its historical aspects; in stratigraphic geology and paleontology; in crystallography, mineralogy, and petrography; and in economic geology.

Under the direction of Mr. Blackwelder, advanced students may investigate the nature and origin of sedimentary deposits, physiographic and structural problems, or physical earth history. The coast and valleys of California and the adjacent states of the Great Basin Province offer exceptional opportunities for the study of these things in the field. Laboratories available for the use of advanced students are equipped with binocular and petrographic microscopes and other necessary apparatus for work in sedimentation. For study and comparison, and also for original research, graduate students have access to a large collection of modern sediments, rocks, and thin sections, derived from many parts of North America and other countries.

The department is well equipped for research in the stratigraphy and invertebrate paleontology of the Mesozoic and Cenozoic formations of the West Coast, as well as in comparative conchology and general invertebrate paleontology, under the direction of Mr. Muller. The Oldroyd collection of Recent shells, now the best in western United States, affords an especially good opportunity to conchologists.

In stratigraphy the whole of the West Coast Mesozoic and Tertiary is accessible and affords unusual advantages for research. The paleontological collections are especially good in Recent, Tertiary, Cretaceous, Jurassic, and Triassic materials. The Arnold collection of West Coast Tertiary and Recent material, and the Law, Streator, Oldroyd, and Hemphill collections of shells are open to students, in addition to the general collections in paleontology. Supervised field study is offered to advanced students of Tertiary stratigraphy and paleontology.

The micropaleontology laboratory, in charge of Mr. Schenck, is equipped with microscopes and reference collections of Recent and fossil microorganisms, especially Foraminifera, and certain specialists have designated it the repository for type specimens. The proximity of collecting grounds on the ocean and San Francisco Bay, the facilities of Hopkins Marine Station at Pacific Grove, the sedimentation laboratory in this department, and fossiliferous Tertiary and Quaternary formations nearby offer unusual opportunities for research. Co-operation with the biological departments adds to the fruitfulness of such investigations. The laboratory also has plenty of oil well cores for the use of those interested in the economic aspects of the subject.

Mr. Rogers offers special studies in crystallography, systematic mineralogy, and petrography. Goniometers and polarizing microscopes with optical accessories are available in crystallography. In mineralogy, opportunities are especially favorable for work in chemical mineralogy. Much material for investigation is available, and a small private chemical laboratory may be used by advanced students.

In petrography large collections of metamorphic and igneous rocks of the state are available, and abundant opportunities are offered for both field and laboratory work. The petrographic laboratory is well equipped for advanced work.

Advanced and research work in economic geology is carried on under the direction of Mr. Tolman. It includes field investigations, laboratory work, and a study of the literature bearing on special problems of economic geology, especially those relating to water supply, petroleum, ores, and nonmetallic substances.

Geologic and hydraulic studies of the ground water of San Francisquito alluvial cone are carried on in the seminar on ground water.

The field work may consist either of a detailed geological study of a district, or of an investigation of a selected type of mineral deposit. The laboratory work may include chemical, microscopical, and office methods of research.

The laboratory courses in petrography and economic geology will furnish training for those who wish instruction in the methods of microscopic investigation of ores, especially the opaque minerals.

The gold, copper, tungsten, iron, and mercury deposits of California, as well as the important nonmetallic deposits of the state, invite research.

The Branner Library, housed in the Geology Building, contains over 10,000 volumes (in addition to pamphlets and maps relating to the geologic sciences. It receives current publications from many parts of the world.

The department has recently established a serial which affords a ready avenue of publication for papers by students as well as members of the staff.

## GEOLOGY

[See also Physical Sciences 1, Introduction to Physical Sciences.]

**1. General Geology.**—The earth, its materials, structure, and internal conditions; the processes which are at work upon and within it; and an outline of its history. Class discussions based upon reading, laboratory, and field study. No prerequisites. Limited to 35 students, except during summer quarter.

5 units, winter, *spring, and *summer quarters (Waters, Putnam, Green) MTWThF 8
Lab. and field work by arrangement
*Winter, 67; spring, 135; summer, 41*

**1a. Engineering Geology.**—This is Geology 1 modified with special reference to the needs of engineers, but open to others. Prerequisites: Elementary Chemistry and Physics. Lectures, laboratory, and field trips.

5 units, autumn quarter (Waters) MTWThF 11
*Autumn, 104*

**101. Physical Geology.**—The structural and topographic features of the earth and the processes of their formation. Prerequisite: Geology 1 or 1*a*.

5 units, winter quarter (Blackwelder, Waters) MTWThF 9
*Winter, 36*

**102. Historical Geology.**—The evolution of the continents, oceans, mountain systems and other features of the earth, and the development of its animal and plant inhabitants. Prerequisite: Geology 1 or 1*a*.

5 units, winter quarter (Muller) MTWThF 9
*Winter, 31*

**108. Field Geology.**—Field work with the Stanford Geological Survey. Summer camps are established in the Coast Ranges. During the first half of

the summer quarter, the geology of the region reached from the camps is worked out and plotted upon topographic maps and sections. All methods of geologic mapping, where a topographic map is used as the base, are taken up. (For second half, see Geology 109; see also Geology 242.) Prerequisites: Geology 101, 121; Civil Engineering 20.

8 units, summer quarter (first half) (Tolman, Kerr, Muller)
*Summer, 19*

**109. Geologic and Topographic Surveying with the Plane Table.**—During the second half-quarter each student member of the Stanford Geological Survey prepares a detailed topographic and geologic map of an assigned area, controlled by accurate instrumental surveying. Prerequisite: Geology 108.

7 units, summer quarter (second half) (Tolman, Kerr, Muller)
*Summer, 18*

**111. Advanced Structural Geology.**—Prerequisites: Geology 101 and 121.

3 units, spring quarter (Waters) MWF 11
[Given in 1930 and alternate years]
*Spring, 21*

**112. Advanced Geology.**—Special individual work in field, laboratory, or library.

Summer quarter (Green) By arrangement
*Summer, 5*

**113. Geomorphogeny.**—The origin of topographic features and the interpretation of physiographic history of selected regions. Based on the study of topographic and geologic maps, models, and published reports. Prerequisites: Geology 101 and 102.

3 units, spring quarter (Davis) [Given in 1931 and alternate years]
*Spring, 22*

**114. Geologic Literature.**—General reading outside of courses, with practice in bibliographic methods and abstracting. Limited to advanced students.

2 or 3 units, each quarter (Shedd) By arrangement
*Autumn, 3; winter, 7; spring, 4*

**117. Local Field Geology.**

2 units, autumn quarter (Waters) T 1:05–4:05
*Autumn, 5*

**119. Technical Writing.**

2 units, spring quarter (Widmann)
*Spring, 4*

**207. Sedimentation.**—The characteristics and origin of sedimentary deposits. Prerequisites: two years of Geology and Mineralogy, including Petrography.

5 units, winter quarter (Blackwelder) MTWThF 11
*Winter, 12*

**210. Geologic Problems or Thesis.**—Investigation of special problems in the laboratory.

Each quarter (Blackwelder) By arrangement
*Winter, 1*

**211. Journal Club.**—All graduate students, members of the faculty, and such undergraduates as may be chosen by the staff will meet weekly to consider papers on current research, reviews of new publications, etc. Each student will present at least one paper each quarter.

1 unit, autumn, winter, and spring quarters M 4
*Autumn, 18; winter, 19; spring, 8*

**212. Geologic Problems or Thesis.**—Field or library investigations of special subjects.

Each quarter (Blackwelder) By arrangement
*Autumn, 4; winter, 6; spring, 1*

**215. Research in Physical Geology.**—For advanced graduates.
Autumn, winter, and spring quarters (BLACKWELDER) [Not given in 1930–31]

**216. Research in Physical Geology.**—Without laboratory work.
Each quarter (BLACKWELDER) By arrangement
*Spring, 1*

MINERALOGY AND PETROGRAPHY

**121. Common Minerals and Rocks.**—The study of the more common and important minerals, with a brief treatment of the prominent rock types. An elementary course, with emphasis upon sight determination and simple physical and chemical tests. Prerequisite: Chemistry 3 or 12 or equivalent.
4 units, spring quarter (ROGERS) Lec. WF 11; Lab. ThF 1:05–4:05
*Spring, 45*

**122. Mineralogy.**—An elementary study of geometrical crystallography. The systematic study and determination of the more important non-silicate minerals. Open to students who have had Geology 121 and Mechanical Engineering 10 (Descriptive Geometry).
4 units, autumn quarter (ROGERS) Lec. TTh 11; Lab. MT 1:05–4:05
*Autumn, 16*

**123. Mineralogy.**—An elementary study of the optical properties of crystals, with emphasis upon the polarizing microscope as an instrument of research. Systematic study of the important silicate minerals and their determination by all available methods. Prerequisite: Geology 122, or equivalent. Physics 111 (Light) is recommended. Limited to twenty students.
4 units, winter quarter (ROGERS) Lec. TTh 11; Lab. TTh 1:05–4:05
*Winter, 13*

**124. Petrography.**—Study of hand specimens and thin sections of the principal rock types and mineral deposits. In Courses 122 and 123 the properties or characters of minerals are considered, while Course 124 is primarily concerned with the relations between associated minerals with special reference to their occurrence and origin. Prerequisites: Geology 122 and 123. Limited to twenty students.
5 units, spring quarter (ROGERS)
Lec. TTh 11; Lab. ThF and one period by arrangement, 1:05–4:05
*Spring, 8*

**125. Crystallography.**—An elementary course covering as far as possible the entire field of crystallography. The course includes (*a*) a study of the geometrical properties of crystals with practice in measurement and drawing; (*b*) the description of crystal structures and their determination from X-ray experimental data; (*c*) a brief survey of the optical properties of crystals with emphasis on the use of the polarizing microscope; (*d*) selected topics in chemical crystallography. Prerequisite: Chemistry 12 or 4. Mechanical Engineering 10 (Descriptive Geometry), and Physics 111 (Light) are recommended. Intended primarily for chemistry and physics majors.
5 units, autumn quarter (ROGERS, HUGGINS)
Lec. TTh 11 and one hour by arrangement; Lab. MT 1:05–4:05
*Autumn, 2*

225. **Advanced Mineralogy.**—Advanced work in crystallography, mineralogy, or petrography may be undertaken by properly prepared students.
2 to 5 units, winter quarter (ROGERS) By arrangement
*Winter, 1*

226. **Advanced Mineralogy.**—The same as Course 225, but with no laboratory work.
2 to 5 units, autumn, winter, and spring quarters (ROGERS) [Not given in 1930–31]

## PALEONTOLOGY AND STRATIGRAPHY

**141. Systematic Paleontology.**—History and character of fossils. Three lectures and six hours of laboratory work weekly.
4 units, autumn quarter (MULLER) MWF 10
*Autumn, 24*

**144. Systematic Conchology.**—Special studies in Tertiary and Recent Conchology of the West Coast. One lecture and two afternoons of laboratory work weekly. Prerequisite: Geology 141.
3 units, winter quarter (MULLER) TTh 1:05–4:05
*Winter, 2*

**145. Tertiary Conchology of California.**—Prerequisite: Geology 141.
2 units, winter quarter (MULLER) TTh 1:05–4:05
[Given in 1932 and alternate years]

**147. General Geology of California.**—Prerequisites: Geology 101, 102.
2 units, autumn quarter (MULLER) TTh 10
*Autumn, 9*

**148. Morphology and Phylogeny of Fossil Invertebrates.**—Prerequisite: Geology 141.
2 units, autumn quarter (MULLER) By arrangement
[Given in 1930 and alternate years]
*Autumn, 1*

**150. Micropaleontology.**—An introductory study of the Foraminifera, marine algae, ostracods, and other microscopic fossils, including fundamentals of laboratory technique. Prerequisites: Geology 102 and 141. Geology 207 and Zoölogy 1, 151, and 158 recommended.
3 units, autumn and *winter quarters (SCHENCK) Lec. W 1:05; Lab. by arrangement
*Autumn, 10; winter, 4*

**151. Micropaleontology.**—A study of the more important groups of the Foraminifera. Continuation of Course 150.
3 units, winter and *spring quarters (SCHENCK) By arrangement
*Winter, 6; spring, 3*

**152. Micropaleontology.**—The morphology, classification, and distribution of the larger Foraminifera, with special reference to the orbitoids. Continuation of Course 151.
3 units, autumn and spring quarters (SCHENCK)
Lec. W 1:05; Lab. by arrangement
*Autumn, 1; spring, 1*

**240. Advanced Paleontology.**—Research in paleontology, especially invertebrate morphology, and the distribution of faunas. Private work in field and laboratory.
Autumn, winter, and spring quarters (MULLER, SCHENCK)
Units and hours by arrangement
*Autumn, 6; winter, 13; spring, 6*

**242. Field Studies in Tertiary Stratigraphy and Paleontology.**—Selected problems are undertaken by advanced students who have completed Geology 108 or equivalent. Geologic sections are examined and fossils collected for laboratory study. For graduates intending to specialize in Tertiary paleontology.
Each quarter (SCHENCK, MULLER) Units and hours by arrangement
*Autumn, 5; winter, 6; spring, 7; summer, 5*

**251. Advanced Micropaleontology.**—Seminar and research in micropaleontology.
Autumn, winter, and spring quarters (SCHENCK) Units and hours by arrangement
*Autumn, 3; winter, 8; spring, 1*

## ECONOMIC GEOLOGY

**160. Ground Water Geology.**—Motions of surface and subsurface water and their relation to geologic structure. Methods of investigating surface and ground water supply. Three lectures and two field and laboratory periods. Students may register for lectures only (3 units) by permission of instructor. Prerequisite: Geology 1 or 1*a*.

3 to 5 units, autumn quarter (TOLMAN) MTWTh 8
*Autumn, 32*

**161. Nonmetals.**—The occurrence, distribution, origin, and geologic methods of investigation of the nonmetallic substances, including oil and coal. Prerequisites: Geology 102, 121.

4 units, winter quarter (TOLMAN) MTWTh 8
*Winter, 14*

**163. Ores.**—The ore-forming processes, modes of occurrence of the various types of ore bodies, and the structures of the ores. A review of the important ore deposits of the United States and of the world. Prerequisites: Geology 1, 102, and 121.

4 units, spring quarter (TOLMAN) MTWTh 8
*Spring, 13*

**265. Seminar in Ground Water.**—Detailed study of the water resources of the Stanford campus and vicinity, or the study of special problems in ground water hydrology. Admitted on consultation.

Winter and spring quarters (TOLMAN) By arrangement
*Winter, 7; spring, 6*

**266. Seminar in the Origin and Accumulation of Oil.**—A critical study of the literature with reference to the origin and accumulation of oil. Students admitted only after personal consultation with the instructor.

4 units, autumn quarter (TOLMAN) By arrangement
*Autumn, 8*

**267. Seminar in Ore Deposits.**—This includes: (1) methods of preparing polished surfaces; (2) microscopic and chemical methods of determination of minerals in polished surfaces; (3) a review of the literature of ore deposits, especially certain important publications of the United States Geological Survey, and the checking of the results appearing in this literature by a study of suites of specimens from the mines. Prerequisites: Geology 101, 124. (Three lecture and conference periods and three or more laboratory periods.)

6 or more units, winter quarter (TOLMAN) [Not given in 1930–31]

**268. Special Courses.**—These include: (*a*) study of the literature of some special phase of economic geology, with a thesis; (*b*) field investigation of some mine or mineral district, or nonmetallic substance, or the general economic geology of an assigned area. Without laboratory work.

Autumn, winter, and spring quarters (TOLMAN) By arrangement
*Autumn, 4; winter, 2; spring, 3*

**269. Special Courses.**—These include microscopic studies of ores collected during field studies (or microscopic investigation of suites of specimens owned by the University).

Autumn quarter (TOLMAN) By arrangement
*Autumn, 1*

## MATHEMATICS

Rufus Lot Green, Professor Emeritus

Hans Frederik Blichfeldt, William Albert Manning, Professors
Sidney Dean Townley, Professor of Astronomy and Geodesy
Harald Bohr (University of Copenhagen), James Victor Upsensky, Acting Professors
Edmund Landau (University of Göttingen), Acting Professor (Summer Quarter)
Harold Hotelling, Associate Professor
Cleo Garland Adelsbach, Chester Francis Luther, Instructors
Max Alfred Heaslet, Acting Instructor
Barry F. Bering, Lincoln C. Damsgard (Astronomy), Acting Instructors (Summer Quarter)
Harold Maile Bacon, Virginia Stuart Boles, Franklin Alfred Butter, Jr., Philip von Lubken, Ralph E. Weston, Assistants in Instruction

The courses offered in Mathematics are arranged in three groups: (I) Courses primarily for Lower Division students; (II) Courses primarily for Upper Division and graduate students; (III) Courses in Astronomy and Geodesy.

*Courses Primarily for Lower Division Students.*—These consist of introductory courses in Analytic Geometry, and Differential and Integral Calculus.

Courses 10, 11, 21, 22, and 23, or their equivalent, Courses 41, 42, and 43, are required of all engineering students. Under Group III, Astronomy and Geodesy, are included courses of especial interest to engineering students, as well as others of a more general interest.

Students intending to graduate with Mathematics as their major subject are required to take Courses 10, 11, 21, 22, and 23, or Courses 41, 42, and 43. This requirement should be met while students are in the Lower Division, preferably during the first year. Such students are recommended to begin or continue the study of French or German in the first year.

Courses 41, 42, and 43, or Courses 10, 11, 21, 22, and 23 should be taken by students in other departments who need or desire Mathematics above the level of secondary school work. This requirement is presupposed for the course in Statistical Theory.

For the courses in this group the aim is to make the instruction practical in the sense of furnishing thorough drill on fundamental principles and much practice in their application. Emphasis is laid upon accuracy and system in the solution of numerical problems. Students whose training in arithmetical work has been deficient, or who are otherwise inadequately prepared, or who lack aptitude for mathematical study, cannot pursue these courses successfully.

*Graduation.*—Candidates for graduation in Mathematics as their major subject, in addition to the requirements for Lower Division students, listed above, must take Advanced Calculus and Higher Algebra, together with other courses selected from Group II to make a total of thirty units of credit in this group. For a portion of the requirement under this group, certain

courses in other departments having a large mathematical content may be substituted.

*Advanced Degrees.*—Candidates for the degree of Master of Arts in Mathematics will be expected to complete, in addition to the requirements for the Bachelor's degree, the equivalent of forty-five units of work in the University of which thirty must be in this department. This work will include a thesis. Candidates are also expected to have a reading knowledge of German or French sufficient to read mathematical papers in these languages. After September 1, 1932, both languages will be required of all graduate students.

Candidates for the degree of Doctor of Philosophy in Mathematics will follow such courses as are approved by the department faculty, subject to general University regulations.

*Library.*—The library facilities are good. The University subscribes for all important mathematical journals and proceedings of learned societies in English, French, German, and Italian, and the library contains complete sets of these and of learned societies of other countries. The more important treatises on mathematical subjects and the collected papers of eminent mathematicians are also in the library.

*Fellowships and Assistantships.*—Besides University Fellowships open to all graduates, there are two teaching fellowships in Mathematics involving approximately four hours' teaching a week, and several assistantships. These positions are filled by graduate students on the basis of ability and training in Mathematics, and in addition upon experience and ability in teaching.

*The Teacher's Recommendation.*—For a teaching minor in Mathematics, Courses 41, 42, and 43, or Courses 10, 11, 21, 22, and 23, together with nine additional units elected from Group II are required; for a teaching major, additional courses totaling twelve units of credit elected from Group II in addition to the requirements for a teaching minor.

## ELEMENTARY COURSES

These courses are provided for students who have not taken them in the preparatory school, or who find it necessary to review them. A fee of $7.50 a quarter is charged for each course, A, B, and C.

**A. Algebra.**—Fundamental laws, negative and fractional indices, quadratic equations. Students who have two entrance units in algebra may not receive University credit for the course.

3 units, autumn and *winter quarters (Butter) MWF 9

*Autumn, 13; winter, 12*

**B. Algebra.**—Quadratic equations, curve plotting, arithmetic and geometric progressions, the binomial theorem, complex numbers, logarithms.

3 units, autumn, *winter, *spring, and *summer quarters (von Lubken, Weston) MWF 9, 11; TTh 9, S 8

*Autumn, 27; winter, 11; spring, 9; summer, 5*

**C. Trigonometry.**—Elementary course with applications involving logarithmic calculation. Students who have entrance credit in trigonometry may not receive University credit for this course.

3 units, autumn, *winter, and *spring quarters (Boles, Bacon, Heaslet) MWF 11; TTh 11, S 8

*Autumn, 35; winter, 20; spring, 23*

## I. COURSES PRIMARILY FOR LOWER DIVISION STUDENTS

**10. Analytical Geometry.**—Courses 10 and 11 cover the following topics: The plotting of curves; loci; geometry of the straight line, circle, parabola, ellipse, and hyperbola; transformation of co-ordinates; polar co-ordinates; solid co-ordinate geometry of the plane and straight line, with a brief discussion of the quadric surface. A placement examination will be given during the first week of the quarter. For the convenience of students failing to present entrance credits in algebra, plane and solid geometry, and trigonometry, or found deficient in them in the placement examinations, Courses A, B, and C, listed above, are offered in the department.

3 units, autumn, *winter, and *spring quarters (LUTHER, ADELSBACH, HEASLET) MWF 9, 11; TTh 9, S 8; TTh 11, S 9

*Autumn, 117 (4 sections); winter, 62 (2 sections); spring, 21*

**11. Analytical Geometry.**—Continuation of Course 10.

3 units, autumn, *winter, and *spring quarters (LUTHER, ADELSBACH, HEASLET) MWF 9, 11; TTh 9, S 8; TTh 11, S 9

*Autumn, 25; winter, 98 (3 sections); spring, 72 (2 sections)*

**21. Differential and Integral Calculus.**—Courses 21–23 cover: Functions; the derivative as the slope of a curve and as the rate of change of a function; formulas of differentiation; maxima and minima; infinitesimals and differentials; slope of curves; the area under a curve; integration; length of the arc of a curve; areas in polar co-ordinates; curvature; definite integrals; volumes of curved solids; centers of gravity, fluid pressure, moments of inertia; infinite series; partial differentiation. Prerequisite: Analytical Geometry.

3 units, autumn, *winter, and *spring quarters (LUTHER, MANNING, ADELSBACH, HEASLET) MWF 8, 9, 10; TTh 9, S 8

*Autumn, 55; winter, 28; spring, 92 (3 sections)*

**22. Differential and Integral Calculus.**—Continuation of Course 21.

3 units, autumn, *winter, and *spring quarters (LUTHER, MANNING, ADELSBACH) MWF 9, 10, 11; TTh 9, S 8; TTh 11, S 9

*Autumn, 61; winter, 24; spring, 21*

**23. Differential and Integral Calculus.**—Continuation of Course 22.

3 units, autumn, *winter, and *spring quarters (LUTHER, MANNING, ADELSBACH) MWF 8, 9, 10; TTh 11, S 9

*Autumn, 15; winter, 50 (2 sections); spring, 37 (2 sections)*

**41. Analytical Geometry.**—An elementary survey of co-ordinate geometry, with applications. Designed to give an understanding of the fundamental principles of the subject, and an ability to put these principles to practical use. Presupposes elementary algebra and plane trigonometry.

5 units, autumn quarter (ADELSBACH) MTWThF 9

*Autumn, 24*

**42. Differential Calculus.**—Functions. The derivative as slope of curve and as the rate of change of a function; formulas of differentiation; maxima and minima; infinitesimals and differentials; slope of curves. Courses 42 and 43 together cover the same subjects as Courses 21, 22, and 23. Prerequisite: Analytical Geometry.

5 units, winter and *summer quarters (ADELSBACH, HEASLET) MTWThF 9, 11

*Winter, 39; summer, 9*

**43. Integral Calculus.**—Integration. The area under a curve; length of the arc of a curve; areas in polar co-ordinates; curvature; definite integrals; volumes of curved solids; centers of gravity; fluid pressure; inertia; infinite series; partial differentiation. Prerequisites: Analytical Geometry and Differential Calculus.

5 units, spring and *summer quarters (ADELSBACH, BERING) MTWThF 9, 10

*Spring, 36; summer, 9*

## II. COURSES PRIMARILY FOR UPPER DIVISION AND GRADUATE STUDENTS

**112. Analytical Mechanics.**—Principles of statics, dynamics, and kinematics.
3 units, spring quarter (USPENSKY) TTh 10 and 1 hour by arrangement
*Spring, 19*

**119. College Algebra.**—The logical basis of the number system, and the theory and solution of equations. For a fuller course in college algebra the student is advised to take Mathematics 119 and 120 simultaneously.
2 units, autumn quarter (HOTELLING) TTh 9
*Autumn, 16*

**120. Determinants and Matrices.**—An introduction to much-used algebraic methods.
3 units, autumn quarter (HOTELLING) MWF 9
*Autumn, 28*

**123. Theory of Probability.**
3 units, autumn quarter (USPENSKY) MWF 11
*Autumn, 6*

**124. Famous Problems from Geometry and Algebra.**
3 units, autumn quarter (BLICHFELDT) MWF 10
*Autumn, 9*

**125 a, b, c. Mathematical Statistics.**—The summarizing of physical, biological, psychological, economic, political, meteorological, and other data, and interpretation in terms of probable inference; frequency distributions; index numbers; rapid methods of calculation; probability; tests for significance of means, differences, correlation and regression coefficients; the correct use of probable errors; tests of stability, independence, and goodness to fit; least squares; simple, partial, and multiple correlation. Prerequisites: Calculus and, for the second quarter's work, Mathematics 120.
3 units, autumn, winter, and spring quarters (HOTELLING) MWF 10
*Autumn, 9; winter, 8; spring, 8*

**130. Advanced Calculus I.**
3 units, autumn quarter (BLICHFELDT) MWF 11
*Autumn, 31*

**131. Advanced Calculus II.**—Ordinary differential equations.
3 units, winter quarter (BLICHFELDT) MWF 11
*Winter, 26*

**132. Advanced Calculus III.**—Partial differential equations of the first order. Green's theorem. Laplace's equation.
3 units, spring quarter (BLICHFELDT) MWF 11
*Spring, 20*

**140. Reading Courses.**—Reading courses in various branches of mathematics may, upon consultation, be arranged for students who have special problems or interests.
Any quarter By arrangement with Executive Head of Department
*Autumn, 2; winter, 3; spring, 9; summer, 1*

**144. Foundations of Arithmetic.**
4 units, summer quarter (LANDAU) TWThF 9
*Summer, 23*

**150. Differential Equations.**—Prerequisite: A working knowledge of integral calculus.
4 units, summer quarter (BACON) MTThF 11
*Summer, 10*

**152. Theory of Numbers.**—Linear and quadratic congruences; binomial congruences; law of quadratic reciprocity; quadratic forms in two vari-

ables. This course is open to all students who have had a short course in the differential calculus.
4 units, autumn quarter (————) [Not given in 1930–31]

**153. Theory of Groups of Permutations.**
4 units, summer quarter (LUTHER) MTThF 10
*Summer, 11*

**155. Projective Geometry.**
5 units, autumn quarter (BACON) MTWThF 8
*Autumn, 5*

**156. Infinite Series.**—Theory of infinite products and continued fractions.
3 units, winter quarter (USPENSKY) MWF 11
*Winter, 6*

**157. Non-Euclidean Geometry.**
4 units, spring quarter (BACON) MTThF 8
*Spring, 13*

**160. Theory of Equations.**—Prerequisite: Differential and Integral Calculus. Special attention will be given to the Galois Theory of Equations. Dickson's *Modern Algebraic Theories* will be used as a text.
3 units, spring quarter (MANNING) [Not given in 1930–31]

**180. Introduction to the Theory of Algebraic Numbers.**—Prerequisite: Elementary theory of numbers and a knowledge of the principles of advanced algebra.
3 units, autumn quarter (USPENSKY) MWF 10
*Autumn, 6*

**203. Periodic and Almost Periodic Functions.**
2 units, autumn quarter (BOHR) TTh 10
3 units, winter quarter (BOHR) TTh 10, MF 1
*Autumn, 27; winter, 13*

**205. Theory of Functions of a Complex Variable.**—A brief course in transformations and integrals in the complex plane. The calculus is presupposed.
4 units, autumn quarter (BOHR) MTThF 11
3 units, winter quarter (BOHR) MTF 11
*Autumn, 16; winter, 12*

**206. Theory of Functions of a Complex Variable.**
4 units, summer quarter (————) [Not given in 1930–31]

**207. Calculus of Variations.**—The determination of unknown functions appearing in an integral which are to be chosen in such a way as to make a maximum or minimum. Subject has many applications in geometry, economics, physiology, and the physical sciences. Prerequisite: Differential Equations.
3 units, spring quarter (USPENSKY) MTTh 11
*Spring, 9*

**208. Differential Geometry.**—Curves and curved surfaces in space. Manifolds of higher dimensionality, including the curved space-time of relativity, will be considered in the latter part of the course. Differential equations and determinants are necessary prerequisites. A knowledge of solid analytic geometry is also desirable.
3 units, winter and spring quarters (HOTELLING) Th 9 and M 7:30–9:30 P.M.
*Winter, 10; spring, 8*

**209. Selected Topics from the Theory of Functions.**—Open to all students who have had an elementary course in Theory of Functions.
3 units, summer quarter (LANDAU) TWTh 8
*Summer, 14*

**210. Analysis Situs.**—The study of properties of figures, such for example as connectivity, which are invariant under deformations and other homeomorphisms. Prerequisite: Determinants.
3 units, winter and spring quarters (HOTELLING) [Not given in 1930–31]

**215. Analytic Theory of Numbers.**
3 units, winter quarter (USPENSKY) T 10, Th 1–3
*Winter, 3*

**220. Linear Associative Algebras.**
3 units, autumn quarter (BLICHFELDT) [Not given in 1930–31]

**225. Advanced Group Theory.**
3 units, autumn, winter, and spring quarters (MANNING) MWF 8
*Autumn, 1; winter, 1; spring, 1*

**230. Seminar in Group Theory.**
(MANNING) [Not given in 1930–31]

**240. Linear Groups.**
3 units, autumn quarter (BLICHFELDT) MWF 10
*Autumn, 2*

**242. Continuous Groups.**
3 units, winter and spring quarters (BLICHFELDT) MWF 10
*Winter, 6; spring, 5*

**250. Seminar in Continuous Groups.**
(BLICHFELDT) [Not given in 1930–31]

**260. Advanced Reading and Research.**—When in the opinion of the department a student is prepared to undertake advanced reading or research not connected with a formal course, such reading or research will be directed by a member of the department.
(BLICHFELDT, MANNING, HOTELLING, BOHR, USPENSKY) By arrangement
*Autumn, 4; winter, 5; spring, 4; summer, 2*

## III. ASTRONOMY AND GEODESY

Courses 50, 51, 165, and 167 are designed especially to meet the needs of students who have time for only a general knowledge of astronomy. Course 161 is intended for students of engineering and geology who desire a working knowledge of practical astronomy. The other courses are intended primarily for students who wish to prepare themselves for astronomical or geodetic work.

**50. Descriptive Astronomy.**—This course consists of a general survey of the various branches of astronomy, including a study of the celestial sphere, the bodies of the solar system, comets, the fixed stars, and other heavenly bodies.
5 units, winter and *summer quarters (TOWNLEY, DAMSGARD) MTWThF 10
*Winter, 35; summer, 12*

**51. Observational Astronomy.**—Study of constellations and various astronomical bodies: Elementary methods of determining latitude and time. One afternoon or evening per week. Supplementary to Course 50.
1 unit, autumn, winter, and spring quarters (TOWNLEY) By arrangement
*Autumn, 4; winter, 19; spring, 6*

**161. Practical Astronomy.**—The theory and practice of the determination of latitude, azimuth, time, and longitude, with sextant and engineer's transit. Intended especially to meet the requirements of students of civil engineering, geology, and navigation. Courses 21, 22, and 23, and surveying are prerequisites.
3 or 4 units, spring quarter (TOWNLEY) MWF 10
*Spring, 20*

**162. Advanced Practical Astronomy.**—A continuation of Course 161. Precise methods of determining time, latitude, etc., by means of the universal instrument.
Autumn quarter (TOWNLEY) By arrangement
*Autumn, 1*

**163. Adjustment of Observations.** — Theory of the method of least squares, with applications. Credit in Courses 21, 22, and 23 or their equivalent is prerequisite.
3 units, autumn quarter (TOWNLEY) MWF 11
*Autumn, 2*

**164. Geodesy.**—Study of the form and dimensions of the earth and the practical methods of geodetic work. Courses 161 and 163 are prerequisites.
3 units, autumn quarter (TOWNLEY) [Not given in 1930–31]

**165. Variable Stars.**—Consideration of the different classes of variable stars, methods of observation and construction of light curves. Course 50 is a prerequisite.
3 units, spring quarter (TOWNLEY) [Not given in 1930–31]

**166. Celestial Mechanics.**—A study of the motions of the bodies of the solar system under Newton's universal law of gravitation. Courses 10, 11, 21, 22, 23, 50, 130, 131, and 132, and 112 or its equivalent are prerequisites.
3 units, autumn quarter (TOWNLEY) [Not given in 1930–31]

**167. History of Astronomy.**—A survey of the progress of astronomy from the time of the Greeks to the present. Course 50 is a prerequisite.
3 units, autumn quarter (TOWNLEY) MWF 10
*Autumn, 3*

**168. Modern Astronomy.**
3 units, spring quarter (TOWNLEY) TTh 10 and 1 hour by arrangement
*Spring, 8*

## PHYSICS

FERNANDO SANFORD, FREDERICK JOHN ROGERS, Professors Emeritus
§ELMER REGINALD DREW, Associate Professor Emeritus

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DAVID LOCKE WEBSTER, PERLEY ASON ROSS, Professors
FLOYD KARKER RICHTMYER (Cornell University), Acting Professor (Summer Quarter)
JOSEPH GRANT BROWN, Associate Professor
JESSE WILLIAM MONROE DUMOND, Acting Associate Professor (Winter Quarter)
H. A. KRAMERS, Lecturer in Mathematical Physics (Spring Quarter)
JOHN CHARLES CLARK, WILLIAM WEBSTER HANSEN, KENNETH BERKELEY STODDARD, Instructors
HARRY CLARK, FRANK B. DUVENECK, Research Associates
MORDEN GRANT BROWN, CECIL J. BURBANK, GEORGE ELTON DAVIS, BOURNE GOODRIDGE EATON, BRUCE ELLSWORTH FOSTER, A. WAYNE HACKNEY, ISHAM RAILEY, PHILIP DANIEL WILLIAMS, Assistants in Instruction

§ Deceased, October 19, 1930.

The Department of Physics, in addition to the courses listed below, offers very good opportunities for research, with excellent equipment, especially in X-rays, light, and atmospheric electricity. In X-rays and in light, attention is being focused on measurements of intensities and their relations to theories of radiation.

For X-rays the equipment includes a vacuum spectrograph and several first-class X-ray spectrometers, apparatus for making and exhausting special X-ray tubes, high-tension alternating-current outfits of various types, and a high-tension direct-current outfit producing exceptionally steady voltages up to 200,000 volts with a power capacity of about a kilowatt.

For researches in light the equipment includes two vacuum spectrographs, a 35-foot six-inch concave grating, two 21-foot six-inch concave gratings, a four-inch plane grating with lenses for use in the visible, quartz apparatus for photographic photometry in the visible and ultra-violet regions, apparatus for photoelectric photometry, an Anderson wire-exploding outfit, several thermopiles, and other radiometric apparatus for the study of spectral energy distributions in the region 10,000 to 2,000 angstroms.

For photographic intensity measurements, in either light or X-rays, there are densitometers of several types.

For research in atmospheric electricity the equipment includes apparatus for recording potential gradient, space charge, and several meteorological elements.

The library facilities of the department are excellent. The University subscribes to all the important physical journals in English, French, and German, and the library contains complete sets of the more important of these and of the transactions and proceedings of a number of learned societies. The more important treatises on physical subjects, in English, French, and German, and the collected papers of a number of the most eminent physicists are also in the library.

*Requirements for Graduation.*—For graduation in the department the minimum requirement is sixty units of Physics and Chemistry, of which at least forty-five units must be Physics. Civil Engineering 99, 100, and 117, and Electrical Engineering 102, 103, 104, 105, 124, and 125 may be counted as Physics courses for the purpose of fulfilling this requirement. Some other courses in related sciences may be counted in full or part value for this purpose on the approval of the Department of Physics. Physics majors are advised to begin their work in Physics with Courses 21, 22, 23, 24, 101 or 103, 111, 33, and 34. Candidates for graduation must offer the equivalent of two years of college work in German, or two years of French and one of German. The election of German in the Lower Division is advised for those who have not had the equivalent of two years of college work in this subject.

*Advanced Degrees.*—In addition to the general requirements laid down by the Committee on Graduate Study, each candidate for an advanced degree in Physics will be required to take a general examination before the Department of Physics at some time during the first quarter of his graduate study, the purpose of this examination being to enable the department to form a reliable judgment of his proposed program of study. In addition to this examination, each candidate for the degree of Master of Arts will be required to pass a second examination before the Department of Physics in the quarter in which he takes the degree; likewise each candidate for the degree of Doctor of Philosophy will be required to pass an examination before the Department of Physics within three months previous to his oral

examination by the committee appointed by the Committee on Graduate Study. Each of the departmental examinations will be partly written and partly oral. A good reading knowledge of German is required for the degree of Master of Arts, and of both French and German for the degree of Doctor of Philosophy.

Candidates for the degree of Doctor of Philosophy majoring in other departments in the Schools of Physical Sciences, Biological Sciences, and Engineering, and taking their minors in Physics, will be required to have at least thirty units of Physics. Candidates majoring in departments in other schools and taking their minor in Physics must satisfy the same requirements as for obtaining the degree of Bachelor of Arts in this department.

*The Teacher's Recommendation.*—For a minor, the minimum requirement is thirty units of Physics, which should include Course 203, and at least nine laboratory units and nine Upper Division units. For a major, the minimum requirement is forty-five units of Physics, including the above and at least eighteen Upper Division units. Courses in related subjects may be substituted for some of the Physics courses on the approval of the Department of Physics. It is highly desirable for candidates for the Teacher's Recommendation in Physics to work as teaching assistants in the elementary laboratories. The practice teaching requirement of the Department of Education may be met in this way.

*Fellowships and Assistantships.*—Besides the University fellowships open to all graduates, there are several assistantships in the department paying $750 per year, and several assistantships at lower salaries.

*Laboratory Fees.*—Courses with one laboratory period, $3 per quarter; two, $5 per quarter; three, $6 per quarter; but no fees will be charged in Course 250 (Research).

## LOWER DIVISION COURSES

These courses are divided into two main groups. One of these includes courses prescribed or recommended for students preparing for biology, chemistry, geology, medicine, and other lines of work not classed as engineering. The other group is designed for engineering students. These groups differ in their emphasis on various topics, and even more in their mathematical prerequisites. For a detailed statement on prescribed courses, the student is referred to the announcement of his own department.

**21. Mechanics and Heat** (without calculus).—Lecture demonstrations on fundamental principles of mechanics and problem work on their application to practical cases. The problems treated are on structures and machines of various kinds, and on the effects of inertia on moving bodies. Heat is treated only briefly, but with special reference to the explanation of heat phenomena by motions of molecules. The essential purpose of the course is not only to give information on these particular subjects, but also to introduce the student to the methods of exact reasoning needed in scientific work of any kind.

3 units, autumn quarter (Ross, J. C. Clark) TThS 8 and 9
*Autumn, 148*

**22. Mechanics and Heat Laboratory.**—Experimental work to accompany Course 21. Prerequisite: previous or concurrent registration in Course 21.

1 or 2 units, autumn quarter (J. C. Clark)
Lab. MTWThF 1:05–4:05, TTh 9–12 (any three hours)
*Autumn, 144*

**23. Electricity** (without calculus).—Lecture demonstrations and problems on the common practical uses of direct currents and the fundamental principles underlying them, including the essential principles of electrostatics, electrolysis, and electromagnetism. Alternating currents and their principles so far as they can be treated without calculus. Electrical phenomena in gases and high vacuum and the evidence derived from them as to the nature of electric currents.

3 units, winter quarter (WEBSTER, DU MOND) TThS 8 and 9
*Winter, 128*

**24. Electricity Laboratory.**—Experimental work to accompany Course 23. Prerequisite: previous or concurrent registration in Course 23.

1 or 2 units, winter quarter (J. C. CLARK) Lab. MTWThF 1:05–4:05
*Winter, 123*

**25. Modern Physics** (without calculus).—A course dealing with the discoveries made in the past few decades regarding the nature of matter and energy. Among other topics the following are discussed and illustrated by lecture experiments: the properties of electrons and atomic nuclei; the structures of atoms; the wave and quantum theories of light; the reactions between electrons, atoms, and light waves. Prerequisite: Course 23 or 35.

3 units, spring quarter (WEBSTER) Lec. TThS 8
*Spring, 122*

**26. Elementary Optics.**—A laboratory course on fundamental principles of light with special reference to common optical instruments. The course is planned primarily for pre-medical students as preparation for Physiology 105, but is also of interest as affording direct contact with some of the fundamental phenomena of light treated in Courses 25 and 101.

1 or 2 units, spring quarter (STODDARD) Lab. MTWThF 1:05–4:05, T 9–12
*Spring, 83*

**33. Heat** (with calculus).—This course treats the subjects of expansion, temperature, thermometry, heat quantity, change of state, transfer of heat, the properties of gases, and the first and second laws of thermodynamics. Prerequisites: Calculus and registration in Course 34, except by special arrangement.

3 units, winter quarter (Ross) Lec. MWF 11
*Winter, 89*

**34. Heat Laboratory.**—Experimental work to accompany Course 33. Students who have not taken high-school physics are advised to register for two units. Prerequisite: previous or concurrent registration in Course 33.

1 or 2 units, winter quarter (HANSEN) Lab. MTWThF 1:05–4:05
*Winter, 88*

**35. Electricity** (with calculus). — Lecture demonstrations and problems illustrating fundamental principles in electrostatics, electrolysis, and electromagnetism. Problems are based on practical uses of direct and alternating currents. The last portion of the course will be discussion of vacuum-tube phenomena. The scope of the course is similar to Course 23, but presupposes calculus.

3 units, spring quarter (HANSEN) Lec. MWF 11
*Spring, 90*

**36. Electricity Laboratory.**—Experimental work to accompany Course 35. Prerequisite: previous or concurrent registration in Course 35.

1 or 2 units, spring quarter (HANSEN) Lab. MTWThF 1:05–4:05
*Spring, 91*

**45. Sound.**—This course treats the subjects of vibratory motion and wave motion from the experimental standpoint. The work on sound is primarily a study of the modes of vibration which occur in musical instruments. Such

subjects as hearing, the phonograph, the radio, and the acoustics of auditoriums are treated briefly. One lecture and two laboratory periods per week.
3 units, spring quarter (BROWN) MTWThF 1:15
*Spring, 11*

UPPER DIVISION COURSES

**101. Modern Physics** (with calculus).—A course dealing primarily with the discoveries of the past few decades on the nature of light, electricity, and matter, similar in general scope to Course 25, but making use of calculus. Prerequisites: Calculus and Course 23 or 35.
3 units, spring quarter (WEBSTER, KRAMERS) Lec. TThS 10
*Spring, 52*

**103. Modern Physics.**—A summer course given by a visiting professor similar in its general nature to Course 101, but differing in content and viewpoint.
3 units, summer quarter (RICHTMYER) Lec. MTW 11
*Summer, 25*

**107. Electrical Measurements.**—This course reviews the fundamental principles of electricity and magnetism covered in Courses 23 and 35, putting them on a more thorough mathematical basis and applying them to methods of exact measurements in direct and alternating currents.
1 unit, autumn quarter (J. C. CLARK) Lec. W 8
*Autumn, 12*

**108. Electrical Measurements Laboratory.**—Experimental work to accompany Course 107. Prerequisite: previous or concurrent registration in Course 107.
1 unit, autumn quarter (J. C. CLARK) Lab. WTh 1:05–4:05
*Autumn, 12*

[NOTE.—*Electrical Engineering 102,* winter quarter, and *103,* spring quarter, are recommended to Physics majors having completed Physics 107 and 108, and are prerequisites for some of the graduate courses in Physics.]

**111. Light.**—This course deals with reflection, refraction, dispersion, interference, diffraction, and polarization of light. Two lectures and two or three laboratory periods per week. Students who have not taken Course 45 should register for five units in order to do certain experiments in vibratory and wave motion. Prerequisites: Courses 21 and 23, or 33 and 35.
4 or 5 units, autumn quarter (BROWN) Lec. TTh 8
Lab. (two or three periods) by arrangement
*Autumn, 13*

**125. Biophysics.**—Lectures on the applications of physical principles to the interpretations of certain biological phenomena; the response of living matter to radiation and other physical stimuli. Prerequisites: Physics 25, 101, or 103. [See also Biology 125.]
2 units, autumn quarter (H. CLARK) TTh 10
*Autumn, 21*

**133. Meteorology.**—A course on the physics of the air. Textbook, lectures, problems, and reports. Prerequisite: a year of college physics.
5 units, winter quarter (BROWN) By arrangement
*Winter, 5*

**135. Atmospheric Electricity.**—A study of the earth's electric field, the ionization of the atmosphere, the thunderstorm, lightning, the penetrating radiation, and the theories concerning them. Textbook, lectures, and reports. Prerequisite: Course 23 or 35. Courses 107 and 133 are desirable.
3 units, spring quarter (BROWN) Lec. MWF 8
[In alternate years; not given in 1930–31]

**143. History of Physical Science to 1800.**—This course is designed especially for students preparing for teaching or research. Each member of the class is assigned several special subjects upon which he is to report. Prerequisite: a year of college physics.
2 units, autumn quarter (BROWN) By arrangement
[In alternate years; given in 1930–31]
*Autumn, 6*

**145. History of Physical Science** during the nineteenth century and the first quarter of the twentieth century. A continuation of Course 143.
2 units, winter quarter (ROSS) TTh 10
[In alternate years; given in 1930–31]
*Winter, 12*

**151. Optical Instruments.**—Optics of the prism, lens, and grating in various useful combinations. Particular emphasis is laid on the study of prism, grating, and interferometer spectrographs, and on the resolving power of optical instruments. Prerequisites: Course 111 and calculus.
2 units, autumn quarter (STODDARD) Lec. TTh 9
*Autumn, 8*

**152. Optical Instruments Laboratory.**—Experimental work in the Spectroscopy Laboratory, using apparatus for the production of spectra. Designed to go with Course 151.
1 unit, autumn quarter (STODDARD) Lab. by arrangement
*Autumn, 6*

**153 Physical Optics.**—Lectures and assigned reading on line spectra in emission and absorption and their relation to atomic structure; magneto-optics; fluorescence; band spectra; the photoelectric effect; the laws of temperature radiation. Course 151 is desirable as an introduction to this course, but is not a prerequisite. Prerequisite: Course 111.
3 units, winter quarter (STODDARD) Lec. MWF 10
*Winter, 10*

**154. Physical Optics Laboratory.**—Experimental work to accompany Course 153, using the large gratings for obtaining photographs of the spectra of various atoms under different conditions of excitation, together with work on interferometers and spectroscopes. Prerequisite: previous or concurrent registration in Course 153.
1, 2, or 3 units, winter quarter (STODDARD) Lab. by arrangement
*Winter, 5*

**155. Atoms and Spectra.**—Lectures and discussion on current theories of line spectra and atomic structure. Prerequisite: Course 153.
3 units, spring quarter (STODDARD) Lec. MWF 10
*Spring, 7*

**156. Spectroscopy Laboratory.**—Experimental work to accompany Course 155. Practical experience in the Spectroscopy Laboratory on the measurement of spectra lines and line intensities. Prerequisite: Course 154.
1, 2, or 3 units, spring quarter (STODDARD) Lab. by arrangement
*Spring, 3*

**161. X-Rays.**—An introductory course, covering methods of producing and measuring X-rays, the main features of their spectra, and the basic laws of their emission, scattering, reflection, absorption, and fluorescence. Prerequisite: a year of college physics.
3 units, autumn quarter (ROSS) Lec. MWF 9
*Autumn, 24*

**162. X-Ray Laboratory.**—Experimental work to accompany Course 161. Simple measurements on fundamental X-ray phenomena. Prerequisite: previous or concurrent registration in Course 161. Class limited to 12 students.
1 or 2 units, autumn quarter (ROSS) Lab. MTWThF 1:05–4:05
*Autumn, 11*

**163. X-Ray Spectra.**—Lectures, readings, and reports on important researches of the last few years. The course is intended as an introduction to available research problems in X-rays.

2 units, summer quarter (RICHTMYER) Lec. MF 8
*Summer, 6*

**164. X-Ray Spectra Laboratory.**—Experimental work to accompany Course 163. The student may be given some simple investigation and be expected to build or assemble such special apparatus as may be needed for the work, or he may be assigned to assist in the conduct of some research in the X-Ray Laboratory. Prerequisite: previous or concurrent registration in Course 163. Class limited to 12 students.

1 or 2 units, summer quarter (Ross) Lab. MTWThF 1:05–4:05
*Summer, 5*

**167. X-Rays.**

2 units, winter quarter (DU MOND) WF 9
*Winter, 9*

**201. Literature of Physics.**—An intensive study of the literature of any special topic in physics. This course is intended for two classes of students: (*a*) those who expect to engage in research and wish to become familiar with the present status of the subject of the proposed research; and (*b*) those who are preparing for the teaching of physics and wish to acquire facility in working up a subject for class use. The work consists chiefly in the preparation and presentation of reports upon the topics studied. Prerequisite: twenty-five units of college physics.

Any quarter (ANY MEMBER OF THE DEPARTMENT) By arrangement
*Autumn, 4; winter, 3; spring, 8; summer, 7*

**203. Teachers' Course in Physics.**—A consideration of the development of physical science and of the scientific method. Particular attention is given to the nature and use of laboratory work in elementary teaching and each student is required to outline the laboratory work for a portion of a high-school or college course in physics. Two lectures and one library period per week. Prerequisite: a year of college physics.

3 units, autumn, *winter, and *spring quarters (BROWN) TTh 9
*Autumn, 1; winter, 2; spring, 12*

**211. Mathematical Physics.**—A series of courses continuing through the academic year, covering subject-matter selected according to the needs of the majority of such graduate students as have completed mathematical courses in advanced calculus and differential equations and most of the Upper Division physics courses or their equivalents, including Electrical Engineering 102 and 103.

5 units, autumn, winter, spring, and summer quarters (WEBSTER, HANSEN, KRAMERS) By arrangement
*Autumn, 8; winter, 6; spring, 6; summer, 6*

**241. Journal Club.**—Oral reports on the current literature of physics by department faculty and graduate students.

Every quarter W 4:15–6:00

**250. Research.**—Under this head may be included all work on experimental or theoretical problems in research, as distinguished from the independent study of non-research character listed as Course 201.

Units and quarter by arrangement (ANY MEMBER OF THE DEPARTMENT)
*Autumn, 9; winter, 8; spring, 8; summer, 2*

**261. Seminar in Chemophysical Biology.**—[See also Biology 261 and Chemistry 261.]

Autumn, winter, and spring quarters (CLARK, LUCK, BAUMBERGER) Th 4
*Autumn, 5; winter, 4; spring, 6*

# SCHOOL OF SOCIAL SCIENCES

Walter Greenwood Beach (*Adviser*), Edwin Angell Cottrell (*Acting Chairman*), Ralph Haswell Lutz, Edgar Eugene Robinson, Henry Waldgrave Stuart, Lewis Madison Terman, Payson Jackson Treat, §Murray Shipley Wildman (*Chairman*), *Executive Committee*

The School of Social Sciences has been formed (*a*) to facilitate the work of students who desire to study in several related fields without meeting the requirements for a degree in any one department; (*b*) to afford a convenient organization for the conduct of courses in subjects which do not lie wholly within the scope of any particular department; (*c*) to make possible a closer correlation of the work of the several departments included in the School.

The faculty includes all members of the departments of Economics, History, Philosophy, Political Science, Psychology, and the divisions of Journalism and Sociology, and the instructors in Citizenship, together with certain professors chosen from the departments of Education, Food Research, Law, Language, and Literature, who offer courses of instruction in subjects related to the Social Sciences.

## UNDERGRADUATES

*Major Students in the School.*—A student may register as a major in the School or in any one of the constituent departments or divisions. If a student elects to become a major in one of the departments he is not obligated to meet the requirements for graduation in the School (as stated on this page), but he is held for the requirements of the department only. In order to become a major student in the School of Social Sciences one must have obtained ninety units of university credit with a grade-point average of 1.5, provided that for majors in any division where specific courses amounting to thirty units or more are required this standard of scholarship may be waived.

For the degree of Bachelor of Arts in this School eighty units are required in courses offered by the departments of Economics, History, Philosophy, Political Science, Psychology, and the divisions of Journalism and Sociology, together with the related courses offered in the other departments mentioned above. A part of this requirement will, under existing regulations, be met while the student is in the Lower Division.

The following courses of study (described in the announcements of the several departments in which they are offered) are specifically required for graduation in the School:

| | |
|---|---|
| Economics 1 (Elements) | 5 units |
| Economics 2 (Sociology) | 5 units |
| History 1, 2, and 3 (European) | 9 units |
| Philosophy 2 (Ethics) | 4 units |
| Political Science 1 (Introduction) | 5 units |
| Psychology 51 (General Psychology) | 5 units |
| Total | 33 units |

§ Deceased, December 24, 1930.

[A course in statistical methods is strongly advised. Such a course is provided by Economics 6 (5 units), Education 185 (4 units), or Psychology 60 (5 units). The modern-language requirements of the Lower Division must be satisfied as early as possible by all major students in the School who enter from other institutions.]

Undergraduates may enroll as major students in any one of the divisions of the School in the same manner as in a regular department of the University, subject to the condition that they shall satisfy the specific requirements of the School for graduation. The divisions of the School may arrange groups of courses constituting "Teaching Majors or Minors" in their respective subjects in the same manner as departments of the University, but no such majors or minors will be granted in "Social Sciences" or under other designation by the School as such.

## GRADUATE STUDENTS

Graduate students who have completed the undergraduate requirements of the School of Social Sciences or of any one of the constituent departments or divisions, or an approximate equivalent of these, may be enrolled in the School as major students and may become candidates for the degree of Master of Arts or Doctor of Philosophy. Graduates of a constituent department or division or of another institution must have completed the specific undergraduate requirements of the School, or their equivalent, before an application for candidacy for an advanced degree can be approved. Candidates for these degrees shall comply with all the general requirements of the University specified for the degree sought. The entire time of candidates for advanced degrees will as a rule be devoted to studies within the constituent and allied departments of the School, but in particular cases courses or lines of study may be elected in other departments of the University when incidental to and comprised within the general plan of work constituting the candidates' "major in Social Sciences."

Prospective candidates for higher degrees in any of the social sciences should realize that they may advance to these degrees by meeting the requirements of the appropriate department or division of the School of Social Sciences and without reference to the requirements set by the School itself for candidates whose work is not within the limits of a single department. The primary function of the School, except in the case of students in the divisions of the School, is to assist students in the investigation of problems which may not admit of satisfactory treatment from the point of view of any one of the several social sciences. Accordingly, only such graduate students as are looking forward to the preparation of a thesis or dissertation upon a problem of the kind in question will be enrolled as major students in the School or approved as candidates for advanced degrees.

Provisional enrollment for the degree of Master of Arts or Doctor of Philosophy will be made with the Chairman of the Executive Committee, who will appoint a special standing committee of three, consisting in each case of representatives of the faculty of the School who are specialists in the fields in which the proposed problem of research lies. Each candidate for the degree of Master of Arts will be given a written examination by the special standing committee appointed in each case, not later than three weeks after the provisional registration in the School. This written examination shall cover at least three related fields in which the candidate proposes to work. The final approval of candidacy will be given after satisfactory

completion of this examination, the approval by the committee of a thesis subject and a program of work in course, and the satisfactory completion of the thesis.

Each candidate for the degree of Doctor of Philosophy in the School of Social Sciences will be under the direction of the special standing committee of three which will be appointed by the Chairman of the Executive Committee. The members of this committee will be chosen from those specialists in the related departments with whom the candidate proposes to work. This special committee shall be responsible for the general oversight of the student's entire work. It shall pass upon the competence of the candidate, recommend the final approval of his application for candidacy, be responsible for his program of work in course and research, and set a suitable written examination prior to the oral examination conducted by the Committee on Graduate Study. The chairman of this special committee will approve the program of studies to be submitted to the Committee on Graduate Study in connection with the application for candidacy for the advanced degree. However, the written program of study shall ordinarily include nine fields which shall be designated by the committee, it being understood that all work in those fields in which the members of this committee are not specialists will be guided by specialists in those respective fields, and the committee will in each case consult with the specialist concerned before giving final approval to the program of study. Application for candidacy must have the final approval of the Chairman of the Executive Committee of the School. The completed program of studies will constitute a "major in Social Sciences" for the degree of Doctor of Philosophy. In view of the composite character of this major, candidates will not be permitted to enroll for a minor in a particular department of the University or division of the School, and the School will regularly recommend to the Committee on Graduate Study in behalf of its candidates for the Doctorate that the normal requirement of a specified minor subject, or subjects, be waived.

## CITIZENSHIP

Edgar Eugene Robinson (History), Director
Henry Stow Anderson (Economics), Assistant Director
Dana Mills Barbour, Victor Hunt Harding, Edward Wentworth Harrington, William Stephen Hopkins, Harley A. Notter, Walter Morrow Rudolph, Edward E. Walker, Flaud Conaroe Wooton, Instructors
Dwight Livingstone Palmer, Acting Instructor (Spring Quarter)

**1-3. Problems of Citizenship.**—A general introductory course required of all students in their first year. Designed to present the salient features in the bases and background of present-day society, to consider the place of education in modern life and the political equipment of the citizen, and to examine in detail some of the present-day social, political, and economic problems of the American people. Attention is given to the following:

1. *Problems of Approach and Method*
   Beginning with the body of tradition and the fact of citizenship
   Presenting the objectives of education and the scientific method and attitude
   Including the evolutionary conception of society and the preparation of mankind for a reasoning course of action
   Testing the progress of man and his co-operation with nature
   Concluding with the development of social science, a survey of the sources of information, and an examination of the use and value of opinion
2. *Problems of Control and Support*
   Beginning with a consideration of intelligence and its relation to leadership in a democracy
   Involving an examination of political democracy, its origin, growth, and present-day manifestations, and the place and scope of constitutional government
   Outlining the cost of government, the sources of its support, and the wide extension of governmental activities
   Concluding with a survey of the institution of private property, the modern wage system, and the control of industry
3. *Problems of Liberty and Co-operation*
   Beginning with an examination of American liberty and the protection of individual rights, including, particularly, the pressure of the movement for liberalism and the argument for revolution
   Presenting the movements of peoples, emphasizing the problem of race and, particularly, social conflicts within the United States
   Concluding with the growth of modern imperialism, with emphasis upon the foreign policies of the United States and, finally, the growth and development of international relations

Lectures by various members of the faculty and sections in charge of instructors in Citizenship.

4 units, autumn, winter, spring, and summer quarters
T 10 and three hours by arrangement
*Autumn, 529 (18 sections); winter, 481 (18 sections); spring, 499 (19 sections); summer, 53*

## ECONOMICS

§Murray Shipley Wildman, Walter Greenwood Beach, Theodore Harding Boggs, John Bennet Canning, Eliot Jones, Albert Conser Whitaker, Professors

George William Dowrie, J. Hugh Jackson, Professors (Graduate School of Business

Romanzo Colfax Adams (University of Hawaii), Howard Hall Preston (University of Washington), Acting Professors (Summer Quarter)

Joseph Stancliffe Davis, Director of the Food Research Institute

Elmer Daniel Fagan, Charles Nathan Reynolds, Carl Burton Robbins, Associate Professors

Theodore John Kreps, Associate Professor (Graduate School of Business)

Henry Stow Anderson, Bernard Francis Haley, Assistant Professors

Richard Tracy LaPiere, John Young Springer, Instructors

C. Ward Macy (Coe College), Acting Instructor (Summer Quarter)

Holbrook Working, Lecturer

Robert Deblois Calkins, Jr., Clyde Garfield Chenoweth, Edward Gene Nelson, Nilan Elmer Norris, Dwight Livingstone Palmer, Edward Stone Shaw, Harris Rolland Skelton, Assistants in Instruction

*Nature and Purpose.*—Instruction in the department is not confined to the subject of Economics as commonly defined, but includes, in the Division of Accountancy, the special training in Economics appropriate for the professional practice of both private and public accountants, and, in the Division of Sociology, subject-matter usually offered in departments of sociology. In the conduct of all the courses, however, the economic factors are emphasized and their importance to our social institutions is developed. The primary purpose of the instruction is to discover the elements of a sound public policy rather than to train for a vocation.

*Library.*—The University Library is well provided with material in all subjects dealing with Economics, as well as in the field of business education. The Hopkins Railway Library affords invaluable material for investigation and study of transportation problems in great variety. There are special collections of works on the institutions and commerce of Brazil, Spanish America, and the Orient, as well as on the development of California and the Pacific Coast. California and its chief port, San Francisco, afford an abundance of material for the study of topics in frontier industrial development, foreign trade, labor, and immigration.

Advanced students in Economics will be given opportunity to study in co-operation with the Food Research Institute and will have access to the Hoover Collection. These sources will afford valuable material for the study of certain problems connected with the World War and the economic collapse of Europe.

*Graduation.*—To arrange a program of study leading to the degree of Bachelor of Arts in Economics a student should consult with his departmental and division advisers in order that his program of work may be adapted to his special needs or interests. In making such a program at least

§ Deceased, December 24, 1930.

a fourth of the required 180 units must be selected from courses offered in this department.

In addition to courses given in this department, certain others offered in Political Science, History, Law, and Philosophy will be found helpful and should be included in the student's program.

Course 1 (Elementary Economics) and Courses 100*a* and 100*b* (Principles of Economics) are required of all candidates for graduation in Economics. To be recommended for graduation a candidate must have earned, in those Stanford courses for which the Registrar has given him a definitive mark and for which the Department allows credit toward satisfying its requirements for the degree, a total number of grade-points at least twice the total number of announced units of credit in the said courses. (For additional requirements in the Division of Accountancy and the Division of Sociology see the statements following the list of courses.)

*Advanced Degrees.*—The work available to advanced students is not limited to that described in the list of courses below. The members of the department, with the assistance of certain members of allied departments, undertake to supervise a wide range of individual advanced study and research.

All candidates for advanced degrees are urged to schedule with department advisers as early as possible the entire program of study to be followed.

The following statement of requirements for advanced degrees is supplementary to the general requirements of the University:

*Master of Arts.*—To be recommended for the degree of Master of Arts in Economics a candidate must have completed an approved course of graduate study at this University amounting to not less than forty-five units of credit exclusive of any units upon which the definitive grade is less than C. In this approved course of graduate study a candidate must have earned a total number of grade-points at least three times the total number of units upon which he has received a definitive mark.

*Doctor of Philosophy.*—To be recommended for the degree of Doctor of Philosophy in Economics a candidate must have acquired a professional proficiency in at least four major fields within the jurisdiction of this Department. The four fields must invariably include the first of those listed below. Substitutions for others of the listed fields may be proposed for the Department's consideration. The list of fields within which elections will ordinarily be made is as follows: Economic Theory and Its History; Economic History since 1750; Statistics; Accounting; Economic Resources and International Trade; Economics of Agriculture; Transportation or Public Utilities; Money, Banking, and Prices; Corporations, Trusts, and Investments; Economic Risk and Insurance; Public Finance; Labor Problems and Industrial Relations; and Population.

If the requirement for a minor subject be waived, six fields must be elected.

*Teacher's Certificate.*—To obtain a teacher's certificate with the major subject in this department, a student will be required to secure credit for forty-five units of work in Economics. For a certificate with a minor in this department, credit for twenty-five units is required. The department does not offer either a teaching major or a teaching minor for the junior high-school certificate.

*Teaching Assistantships.*—The department annually nominates a number of graduate students for appointment as teaching assistants. The stipends of appointees vary from $750 to $900 per year (three quarters). The service expected consists of conducting one section of an elementary course during each quarter. It is our experience that able and well-prepared students can carry on this instruction and, at the same time, pursue satisfactorily graduate work on their own account. Applicants for these appointments for an ensuing year should address their requests to the executive head of the department not later than the last day of February. The applications should be accompanied by a complete, authenticated transcript of academic record (graduate and undergraduate) and should name several persons qualified to speak of the applicant's fitness for appointment.

## COURSES OPEN TO LOWER DIVISION STUDENTS

[Courses *3a* and *3b* are the only courses open to freshmen. For courses in sociology see Division of Sociology.]

**1. Elementary Economics.**—This is a brief study of problems involving the production, exchange, and use of wealth. An attempt is made to give the student an approach to the economic issues of the day with an intelligent appreciation of the factors which make for sound public policy. To become a major student in the department a student must either have completed this course or be registered for it in the quarter in which he enters the department. Prerequisite: Completion of the course in citizenship or full exemption therefrom.

5 units, autumn, *winter, *spring, and *summer quarters (Chenoweth, Macy, Norris, Palmer, Skelton)

*Autumn, 170 (4 sections); winter, 122 (4 sections); spring, 106 (3 sections); summer, 30*

**3a. Elements of Accounts.**—The equation of modern accounts; theory of debit and credit; classification of accounts; procedure of recording transactions in modern accounting devices; preparation of balance sheets and loss and gain statements. No prerequisites. Sections limited to 40 students.

5 units, autumn, *winter, and *spring quarters (Nelson, Shaw)

*Autumn, 79 (2 sections); winter, 125 (3 sections); spring, 45*

**3b. Elements of Accounts.**—Conclusion of Course *3a*. Prerequisite: Course *3a* or the equivalent. This course should be taken by those expecting to enter Course 120, and is a prerequisite to all other courses in accounting except Course 4. Sections limited to 40 students.

5 units, autumn, *winter, and *spring quarters (Nelson, Shaw)

*Autumn, 44; winter, 42; spring, 74 (2 sections)*

**4. Elements of Accounts.**—A briefer course within the scope of Courses *3a* and *3b* intended for those who expect to take only one course in the subject. No prerequisite. This course will not ordinarily serve, in place of *3a* and *3b*, as a prerequisite to other courses in accounting. Sections limited to 40 students.

5 units, autumn, *winter, and *spring quarters (Springer)

*Autumn, 34; winter, 29; spring, 43*

**5. Elements of Cost Accounting.**—A general survey course in the theories and technique of cost or industrial accounting. Prerequisite: Course *3b*.

5 units, winter quarter (Robbins)

*Winter, 49*

**6a. Introduction to Statistical Methods.**—A study of elementary statistical methods appropriate for dealing with problems in the social sciences

and business. Emphasis is given to the critical examination of data, to the defining of statistical units, to the theory of classification, and to the properties and appropriate uses of the commoner averages and measures of dispersion. Some attention is also given to the simpler phases of index numbers and linear correlation. No prerequisites. Sections limited to 35 students.
5 units, autumn and *winter quarters (SPRINGER)
*Autumn, 28; winter, 37*

**6b. Introduction to Statistical Methods.**—A study of some of the problems of analysis of time series, including measurement of secular trends, seasonal fluctuations, and cyclical fluctuations. Prerequisite: Course 6*a* or the equivalent. Sections limited to 35 students.
5 units, spring quarter (SPRINGER)
*Spring, 38*

**24. Problems of Agriculture.**—A study of the economic forces and institutions with which the farmer is concerned. Prerequisite: Course 1. Limited to 75 students.
5 units, autumn quarter (ANDERSON)
*Autumn, 63*

**46. Economic History of the United States.**—A general historical survey of the economic development of the United States from the Colonial period to the present. The subject matter of the course includes the tariff, commerce and manufactures, currency and banking, the South and slavery, the financial management of the government, the labor movement and immigration, and the conservation of national resources.
5 units, autumn quarter (FAGAN)
*Autumn, 163*

COURSES OPEN TO UPPER DIVISION AND GRADUATE STUDENTS ONLY

**100a. Principles of Economics.**—A review of the principles of economics. Required of major students in the Department of Economics and open only to them, to students in the School of Social Sciences, and to graduate students. Prerequisite: 135 units.
5 units, autumn, *winter, *spring, and *summer quarters (CALKINS, JONES, MACY, ROBBINS)
*Autumn, 125 (3 sections); winter, 109 (2 sections); spring, 40; summer, 25*

**100b. Principles of Economics.**—A continuation of the work begun in 100*a*; required for graduation in the Department of Economics. Prerequisite: Course 100*a*.
5 units, autumn, *winter, *spring, and *summer quarters (ANDERSON, BOGGS, CHENOWETH, FAGAN, PRESTON)
*Autumn, 29; winter, 109 (3 sections); spring, 112 (3 sections); summer, 15*

**101. Labor Problems.**—A general course. The topics considered include the following: the rise of the wage-earning class, the industrial revolution, unemployment, woman and child labor, wages, collective bargaining, labor motives, and cultural aspects of labor life.
5 units, winter quarter (BOGGS)
*Winter, 99*

**106. Foreign Exchange.**—The settlement of debts arising in foreign trade, banking for the foreign trade, international money markets and bill markets, etc. (Same as Course 209, autumn quarter.)
4 units, autumn and *spring quarters (WHITAKER)
*Autumn, 25; spring, 59*

**107. Railway Transportation.**—Historical account of railroad transportation; rates and rate-making; development of railroad systems; state and

federal legislation; decisions of the commissions and of the courts; government ownership and operation. Limited to 100 students.
5 units, autumn quarter (JONES)
*Autumn, 99*

**108. Money and Banking.**—The elements of monetary theory; the laws of coinage, legal tender, and credit; the history and principles of banking.
5 units, autumn quarter (DOWRIE)
*Autumn, 176*

**109. Valuation.**—The valuation of the operating assets, of the liabilities, and of the proprietary interests in private enterprises; the relating of anticipated outlay costs of operation to the problem of present valuation. Emphasis is given to the theories of depreciation, depletion, and obsolescence of assets and to the valuation of goodwill. Prerequisite: Course 3*b*, or the equivalent.
5 units, winter quarter (CANNING)
*Winter, 23*

**110. Public Finance.**—A general course dealing with the history and theory of public expenditures, national, state, and local budgets, methods of securing efficiency in the disbursements of public moneys, public debts, and war finance. Prerequisite to Course 111.
5 units, autumn and *spring quarters (FAGAN)
*Autumn, 37; spring, 169*

**111. Taxation.**—A general treatment of the principles and practice of taxation, with special reference to American methods and conditions. Prerequisite: Course 110, or the equivalent.
5 units, winter quarter (FAGAN)
*Winter, 36*

**[Business Law.**—See Law 101, 102, and 103.]

**119. Accountancy of Investment.**—Methods of valuing income-bearing properties and securities on the basis of a rate of interest, and of finding the rate of interest yielded on investments. Depreciation and sinking funds. The student's work consists largely in the solution of assigned problems. Advanced mathematics not required.
4 units, autumn, *winter, and *spring quarters (WHITAKER)
*Autumn, 32; winter, 59; spring, 100*

**120. Lectures on Corporation Finance.**—Elementary survey of corporation law; the organization and management of corporations and combinations; the corporation's securities, the stock market and stock speculation; financial policy; promotion, underwriting, and reorganization.
3 units, winter quarter (WHITAKER)
*Winter, 136*

**128. Cost Analysis.**—The nature of enterprise costs; classification of costs; modes of allocating cost to items of product; the problems of joint cost and of unused capacity; the limitations of cost accounts; differential costs. Prerequisite: Course 5 or the equivalent.
5 units, spring quarter (CANNING)
*Spring, 32*

**130. International Trade.**—A survey of the theory of international trade and a study of the commercial policy of leading countries.
5 units, autumn quarter (BOGGS)
*Autumn, 166*

**148. Federal Tax Procedure.**—A study of the problems involved in the determination of the taxable income of individuals under the most recent Internal Revenue Act. Prerequisite: Course 3*b*.
5 units, autumn quarter (ROBBINS)
*Autumn, 40*

**149. Capital and Income.**—A critical review of the economists', the lawyers', and the accountants' views of the nature of capital and income. Prerequisite: 120 units of credit.
5 units, spring quarter (CANNING)
*Spring, 101*

**160. Business Cycles.**—The business cycle, its characteristics and economic consequences; forecasting general business conditions; proposals for modifying or eliminating the business cycle; statistical methods employed in the study of the business cycle.
4 units, summer quarter (HALEY)
*Summer, 32*

## COURSES PRIMARILY FOR GRADUATE STUDENTS

**202. Seminar in Transportation and Public Utilities.**—This seminar is designed for advanced students.
Autumn, winter, and spring quarters (JONES) By arrangement
*Autumn, 2; winter, 1; spring, 3*

**205. Seminar in Economic Research.**—Open to qualified students.
(DAVIS) [Not given in 1930–31]

**208a and b. Seminar in Public Finance and Taxation.**—This course affords opportunity for independent reading and research in the general field of public finance. Periodic conferences are held for discussion and criticism of the results of each student's investigations. Wide freedom of choice of topics is permitted, subject only to the limitation of available library and field material.
*208a*. autumn quarter
*208b*. winter and spring quarters (FAGAN) By arrangement
*Autumn, 2; winter, 3; spring, 5*

**209. Foreign Exchange.**—(See Course 106.)

**210. Accounting Problems.**—Methods appropriate for recording and reporting divers classes of transaction to which anyone is likely to be a party but which constitute the principal business of few persons. Such transactions as those between corporation and underwriter, principal and broker, bankrupt and referee and trustee in bankruptcy, trustee and beneficiary, insurer and insured (following a loss), etc., are discussed. Liberal use is made of problems set in recent examinations for certified public accountants. Prerequisite: consent of the instructor.
5 units, autumn quarter (CANNING)
*Autumn, 8*

**211. Index Numbers.**—The making of index numbers. Prerequisite: An elementary course in statistics.
5 units, autumn quarter (CANNING)
*Autumn, 12*

**213a and b. History of Economic Thought.**—A study of the development of economic theories from ancient times to the present. The first half of the course covers the period previous to Adam Smith. Either half may be

taken without the other. Seniors may be admitted with the consent of the instructor.

*213a.* 4 units, spring quarter (HALEY)
*213b.* 4 units, winter quarter (KREPS)
*Winter, 9; spring, 3*

**214. Investments.**—A study of the issues of national, state, and municipal governments, of railway, industrial, and irrigation companies from the investor's point of view, and the organization and methods of bond and brokerage houses.

3 units, winter and *spring quarters (ROBBINS)
*Winter, 35; spring, 42*

**217. Railway Problems.**—A study, from the viewpoint of public policy, of the problems that arise in connection with government regulation and government ownership. Prerequisite: Course 107, and consent of the instructor.

5 units, winter quarter (JONES) [Not given in 1930–31]

**220. Financial Reports.**—A discussion of the character of reports necessary to a proper control of the finances of private enterprises; corporate issues; dividend policy; borrower-depositor relations with banks; trade credit policy, etc. The statistical analysis of financial statements will be the mode of procedure. Prerequisite: consent of the instructor.

5 units (CANNING) [Not given in 1930–31]

**221a and b. Seminar in Accountancy.**—Research in approved problems in the theory and practice of accountancy.

*221a.* autumn quarter
*221b.* winter quarter (CANNING) By arrangement
*Autumn, 2; winter, 2*

**222a and b. Auditing and Accounting Procedure.**—This course is offered for students who are interested in auditing and accounting procedure from the standpoint of the public accountant or the treasurer, comptroller, or auditor in charge of the accounts of a commercial or industrial concern.

The autumn quarter deals with the fundamentals of auditing. The major portion of the quarter is devoted to the balance-sheet audit, while the detailed and cash audits are only briefly considered. The spring quarter is devoted largely to a study of investigations and to report writing and the preparation of statements for the business executive or client.

Prerequisite: for Course *222a*, 20 units of accounting, or consent of instructor; for Course *222b*, Course *222a*.

*222a.* 4 units, autumn quarter
*222b.* 4 units, spring quarter (JACKSON)
[Course *222b* not given in 1930–31]
*Autumn, 39*

**223. Operating Reports.**—A discussion of the character of reports essential to the proper management of a concern with respect to internal operations; particularly the problems of inventories, of manufacturing, of purchasing, of labor turnover, and of budgetary control. Prerequisites: Courses 3*b* and 5.

5 units, spring quarter (ROBBINS)
*Spring, 22*

**225. Public Utilities.**—A study of the problems that arise in connection with the regulation of public utility companies (electric light and power, gas, street railway, telephone, and water). Prerequisite: Consent of the instructor.

5 units, winter quarter (JONES)
*Winter, 14*

**239a and b. Price Forecasting.**—Economic laws governing commodity prices, methods of statistical study, and application to price forecasting. A familiarity with the theory of business cycles and of the general price level is presupposed, as well as knowledge of elementary statistical methods.
*239a.* 3 units, winter quarter
*239b.* 3 units, spring quarter (WORKING)
*Winter, 5; spring, 4*

**240. Seminar in International Trade.**
Winter quarter (BOGGS) By arrangement
*Winter, 9*

**247a and b. Advanced Theory.**—A critical analysis of recent writings in general economic theory. The members of the class are expected to participate freely in discussion. Prerequisites: Courses 100*a* and 100*b*, or equivalent; 247*a* is a prerequisite to 247*b*. Seniors may be admitted with the consent of the instructor.
*247a.* 5 units, winter quarter (KREPS)
*247b.* 5 units, spring quarter (HALEY)
*Winter, 9; spring, 8*

**248. Theories of Social Reform.**—A historical study of the various proposals which have been made for the reformation or reconstruction of society.
4 units, summer quarter (HALEY)
*Summer, 14*

**251. Seminar in Agriculture.**—Prerequisite: Course 24, and the consent of instructor.
Winter and spring quarters (ANDERSON)
*Winter, 3; spring, 1*

**252. Seminar in Economic Theory.**—This seminar is designed for graduate students.
(HALEY) [Not given in 1930–31]

**253. Seminar in Labor Problems.**
Spring quarter (BOGGS)
*Spring, 11*

**256. Monetary and Banking Problems.**—The course deals with questions of monetary and banking policy. The class as a whole jointly studies selected topics. In addition, each student makes a special investigation of a selected subject and prepares a report or term paper thereon. Prerequisite: Money and Banking or consent of the chairman of the department or instructor in charge.
5 units, summer quarter (PRESTON)
*Summer, 14*

## DIVISION OF ACCOUNTANCY

*Nature and Purpose.*—The Division of Accountancy is created to administer a professional training course in Accountancy. The course attempts to organize the existing facilities of instruction in the University in such a way that the body of knowledge necessary to the competent practice of accounting can be most readily acquired. That body of knowledge includes: (1) a sound foundation in general mathematics and statistical method; (2) a ready and full command of certain commercial branches of private law; and (3) a real understanding of the conduct of men in their business relations

and of the public problems arising from economic behavior. To this substantive knowledge must be added modes of procedure adequate for the highly specialized statistical work that constitutes the principal work of the accountant's calling.

*Graduation.*—In order to arrange most conveniently a program leading to the degree of Bachelor of Arts in Economics and Accountancy, the student should consult his department and division advisers as early as possible after matriculation. The following courses are required, but the indicated sequence of work is an advisory, not a required order.

*First and Second Years.*—Satisfaction of the Lower Division requirements; Elements of Accounts, Elements of Cost Accounting, Elementary Economics, and fifteen to twenty units of mathematics and statistical methods.

*Third Year.*—Corporation Finance, Accountancy of Investment, Valuation, Federal Tax Procedure, Cost Analysis.

*Fourth Year.*—Principles of Economics, Auditing and Accounting Procedure, Capital and Income, and either Business Law (9 units) or Contracts (8 units). Financial Reports, Operating Reports, Consolidated Reports, and Accounting Problems may be taken as electives, or, in case of schedule conflicts, as substitutes for other Upper Division work.

*Degree of Master of Arts.*—A fifth year's program, leading to the degree of Master of Arts in Economics and Accountancy, may be arranged. This should include courses in Agency, Bills and Notes, Bankruptcy, Private Corporations, and any advanced courses in accounting not taken in the undergraduate years.

## DIVISION OF SOCIOLOGY

Students may major in the Division of Sociology within the Department of Economics, or simply within the School of Social Sciences. Those who wish to major in this division within the Department of Economics must add to the courses required by the department for Economics majors Course 2 (Elements of Sociology) and Course 101 (Labor Problems). They are urged also to include in their curriculum courses in psychology, ethics, and statistics.

Students in the Division of Sociology of the School of Social Sciences, in addition to meeting the requirements of the School of Social Sciences, must take at least thirty units in sociology.

*Advanced Degrees.*—Candidates for higher degrees may choose Sociology as a major or minor. The following may be considered as fields of study within Sociology as a whole:

1. Sociological Theory and Its Development
2. Social Psychology and Its Applications, including Race Relations
3. Social Economy and Social Legislation
4. Social Pathology: Crime, Poverty, Dependency, Physical and Mental Weakness
5. Social Evolution and the Study of Institutions: Family, Industry, Religion
6. Population, Immigration
7. Urban and Rural Sociology

It is not expected that candidates should be equally prepared in all of these fields, selection and emphasis being dictated by interests and previous preparation; but an acquaintance with the first mentioned (number one) is expected in all cases.

*Medical Social Work.*—Opportunity for full-time training in Medical Social Work is available at the Stanford University Clinics in San Francisco under the supervision of the Director of Social Service. Opportunity will be given for experience in connection with the Children's Clinic, Women's Clinic, and the General Medical Clinics, as well as with the hospital.

### Course Primarily for Lower Division Students

**2. Elementary Sociology.**—This course is an elementary study of social principles and problems which are found in human relations as expressed in social organization and institutions. Prerequisite: completion of Citizenship, or full exemption therefrom.

5 units, autumn, *winter, *spring, and *summer quarters (LaPiere, Beach)
*Autumn, 94; winter, 106; spring, 105; summer, 34*

### Courses Primarily for Upper Division and Graduate Students

**101. Labor Problems.**—A general course. The topics considered include the following: the rise of the wage-earning class, the industrial revolution, unemployment, woman and child labor, wages, collective bargaining, labor motives, and cultural aspects of labor life. Prerequisites: Courses 1 and 2.

5 units, winter quarter (Boggs)
*Winter. 99*

**112. Social Processes.**—This course, together with 113, affords a more extended survey of the general field and problems of Sociology than is given in Course 2. Course 112 studies the basic processes of group life, suggested by such terms as socialization, opposition, accommodation, co-operation. Prerequisite: Course 2.

5 units, autumn quarter (Beach)
*Autumn, 43*

**113. Social Evolution, Culture, and Progress.**—A study of the factors and forces involved in the organization and modification of society. The meaning of culture, the nature of social change, the development of institutions, and the possibility of progress are emphasized. Prerequisites: Courses 2 and 112.

5 units, winter quarter (Beach)
*Winter, 34*

**114. Social Problems.**—An introductory course in the field of social pathology. It includes consideration of problems arising through economic or other factors, and aims to throw light upon both the causes and possible amelioration of maladjustment. Special attention is given to recent social changes in relation to social pathology, such as the development of the modern city, the social attack upon disease, recent industrial changes, and the social work movement.

5 units, winter quarter (Reynolds)
*Winter, 104*

**115. Population.**—A study of the theories of population and problems of quantity, quality, distribution, and standards of living in modern society.

5 units, autumn quarter (Reynolds)
*Autumn, 130*

**116. Immigration.**—A general introduction to the study of immigration in the light of the principles of population, with special reference to the composition of the American people and the social problems involved in the conflicting economic standards and cultures in the United States. Prerequisites: Courses 1 and 2.

5 units, spring quarter (REYNOLDS)
*Spring, 173*

**117. The Family.**—This course studies the family as a social institution, its functions, development, and modern aspects. Problems of child welfare are considered, but very briefly.

5 units, summer quarter (BEACH) [Not given in 1930–31]

**118. Criminology.**—The social significance of crime and criminals; historical methods of dealing with criminals; causes and treatment of crime from the viewpoint of processes of social interaction and social control. Present trends in: the study of crime; legislation; court procedure; prison systems; and crime prevention. Prerequisites: Courses 1 and 2, and Psychology 51.

5 units, winter quarter (REYNOLDS)
*Winter, 130*

**121. Cultural Anthropology.**—An introductory course in the study of man and his culture, with the emphasis upon the significance of culture and culture building for Sociology. Consideration is given to fossil and prehistoric man, palaeolithic and neolithic cultures, types of primitive social organization, primitive arts and mythology, the modern races, the origin and spread of culture traits, and culture building. Prerequisite: Course 2.

5 units, autumn quarter (REYNOLDS)
*Autumn, 44*

**122. Social Psychology.**—A study of social behavior. The approach will be made through the group in an effort to suggest the influence of the social heritage upon individual behavior, and the merging of individual behavior into group action. If available, Kimball Young's forthcoming *Principles of Social Psychology* will be used as a text. Prerequisites: Course 2 and Psychology 51, or equivalents.

5 units, winter and *summer quarters (LAPIERE)
*Winter, 38; summer, 14*

**123. Problems of Institutional Maladjustment.**—A study of institutional organization centering attention upon the problems of modern society, such as poverty, dependence, etc., which have become especially significant since the industrial revolution. Effort is made to trace the socio-historical sources of present institutional maladjustment and to indicate the efforts at adaptation now being made. Prerequisites: Courses 1 and 2.

5 units, autumn and *summer quarters (LAPIERE)
*Autumn, 13; summer, 1*

**150. Race Relations.**—The course involves a discussion of race contacts as found in the experience of typical areas in different parts of the world. It will, however, make special use of data from Hawaii.

5 units, summer quarter (ADAMS)
*Summer, 58*

**151. Migration.**—A study of migration as a world phenomena in both ancient and modern times. It will describe the natural history of the social process by which members of the immigrant group lost their identity as such; and will consider problems of social disorganization and reorganization.

5 units, summer quarter (ADAMS)
*Summer, 43*

**203. Development of Sociological Theory.**—A historical and analytical study of leading sociological thinkers as a basis for an understanding of society and its problems.
4 units, autumn quarter (Beach)
*Autumn, 10*

**204. Trends in Contemporary American Sociology.**—A continuation of Course 203, but may be taken independently.
4 units, winter quarter (Beach)
*Winter, 14*

**206. Seminar in Race Relations.**—The social processes set in motion when races come in contact and the social problems arising are studied, with special emphasis placed upon race relations following immigration to the United States.
4 units, spring quarter (Reynolds)
*Spring, 14*

**207. Seminar in Social Psychology.**—An advanced consideration of the fundamental problems in the study of social behavior. Prerequisites: Course 122, or equivalent; permission of instructor.
4 units, autumn quarter (LaPiere)
5 units, summer quarter (LaPiere)
*Autumn, 1; summer, 1*

**209. Seminar in Sociology.**—For graduate students working upon theses.
Spring quarter (Beach)
*Spring, 4*

**216. Seminar in Social Legislation.**—The intervention of the state in protection of less favored classes and for the common social welfare is studied through special topics for individual investigation and report.
4 units, winter quarter (Beach) [Not given in 1930–31]

## HISTORY

Edgar Eugene Robinson, §Ephraim Douglass Adams, Edward Maslin Hulme, Ralph Haswell Lutz, Percy Alvin Martin, Payson Jackson Treat, Professors

Louis Martin Sears (Purdue University), Acting Professor (Spring Quarter)

Henry Grégoire (University of Brussels), Chester Penn Higby (University of Wisconsin), Winfred Trexler Root (University of Iowa), Acting Professors (Summer Quarter)

Carl Fremont Brand, Yamato Ichihashi, Associate Professors

David Harris, Assistant Professor

Thomas Andrew Bailey, Acting Assistant Professor

Gilberto Freyre, George Vernadsky, Harold Henry Fisher, Lecturers

Harold Whitman Bradley, Clarence Gladden Osborn, Charles Craven Scott, Edward Arthur White, Instructors

The Department of History provides a liberal course for the degree of Bachelor of Arts, offers opportunity for graduate study leading to higher degrees in certain selected fields in which the University is especially well

§ Deceased, September 1, 1930.

equipped, trains teachers of History, and renders a general service to the other departments of the University.

In addition to its more specialized work, the department offers a number of courses grouped as (I) Elementary, (II) Introductory, and (III) Advanced Lecture Courses, intended to meet the general needs of the University constituency. The underlying principle of these courses is that they shall be useful, not in the utilitarian sense, but in the sense that they aid in equipping the student for his duties as a citizen and in giving him instruction that may be helpful in such work as law, journalism, library research, state and national public service, and in business where a knowledge of domestic and foreign affairs is desirable.

*Graduation.*—For History majors the curriculum for the degree of Bachelor of Arts is designed to familiarize the student with the fundamentals and methods of the chief branches of knowledge, and with the methods of historical science. With this object in view, a general system of advice and requirement has been outlined, but it may be varied to suit the circumstances of the truly exceptional student. Under the four-quarter system 180 units are required for graduation. The general system of the Department of History prescribes forty-five units of History, of which three are required in an introductory seminar, and five in a seminar. In addition to the requirements of the Lower Division the department requires eight units in Economics or Political Science. Upper Division students who have been admitted without having met the specific Lower Division requirements will be expected to offer twenty units in Economics and/or Political Science, ten units in English Composition, a laboratory course in science, and a year of a foreign language.

*Advanced Degrees.*—Graduate students, candidates for advanced degrees, are desired and will be given personal guidance, but the purposeless graduate student will not be accepted by the department. For the degree of Master of Arts, the University Library contains adequate material in all of the customary lines of historical study. This is true also in general for the degree of Doctor of Philosophy, and there are certain special fields in which the library is unusually well equipped. These are (1) English-American relations of the nineteenth century, in which topic Stanford possesses nearly all the printed documentary material anywhere available. (2) The Far East, as well as the history of Australasia (Professors Treat, Ichihashi). (3) The history of California since the American occupation, particularly the political history of the state, where use may be made of the materials gathered under the provisions of the Borel Fund (Professor Robinson). (4) The French Revolution, especially in relation to political pamphleteering of the earlier years of the Revolution (Professor Lutz). (5) English history since 1200, and Canadian history since 1840 (Professor Brand). (6) An effort is being made to strengthen the material in South American history; this is now sufficient to permit of advanced research work in the history of Brazil, in which field an extensive collection of Braziliana recently donated to the University by the late President-Emeritus Branner is available to graduate students (Professor Martin). (7) The period of renaissance in Europe (Professor Hulme). (8) Modern history of Russia and of the lesser Slavic nations, and (9) the World War, especially in relation to industrial, political, and social questions in all of the countries of the world, and in relation to the claims of the nations before the Peace Conference at Paris. By the generosity of Mr. Herbert Hoover a great history collection

on the war is now being organized at Stanford University. In addition to comprehensive purchases of important war books, the collection is rich in sets of government documents of the leading nations, in "delegation propaganda" placed before the Peace Conference by sixty states, and in publications of the leading societies, some seven hundred in number, of France and of Great Britain. Not all of this material is as yet organized and ready for use, but graduate students will be given facilities for research in special fields.

Courses in the History Department are arranged in six groups. The third and sixth groups cover, in general, the principal courses from which the graduate student may select, though he may be admitted at the discretion of the department to any of the general introductory lecture courses. The department requires for the Master's degree the presentation of an acceptable thesis, and the passing of a written examination on elementary facts of two of the main historical fields. The work of candidates for the degree of Doctor of Philosophy cannot be determined in advance by any list of specific courses regularly offered; such candidates will be given guidance in the field selected from those indicated above.

The department has several student assistantships at $300 each which are customarily given to candidates for advanced degrees. There is also a University scholarship of $500 a year granted to a woman student in the History Department.

Graduate students seeking to fulfill the requirements for the State Board of Education for the Teacher's Certificate will be given the necessary aid and opportunities, but will register as majors in the School of Education. (See *Announcement of the School of Education.*)

*The Teacher's Recommendation in History.*—Applicants for the departmental recommendation, as a major, must have completed in a manner acceptable to the department at least forty-five units of History, as follows: Introductory Courses, 28 units; Advanced Lecture Courses, 9 units; Introductory Seminar Course, 3 units; Seminar Courses, 5 units.

For a teaching minor either European or American History may be offered:

*a*) European History—selected from Introductory Courses in Ancient, Medieval, Modern European, English, and Far Eastern History, 15 units; Advanced Lecture Courses in these fields, 5 units; Introductory Seminar Course in one of these fields, 3 units.

*b*) American History—similar to a minor in European History, but courses in American and Latin-American History must be selected.

The Teachers' Course in History, as offered by the School of Education, is a prerequisite for either a teaching major or minor. (See Education 214.)

### I. ELEMENTARY COURSES

[Open only to students meeting the requirement for History in the Lower Division.]

**1. European History, 300–1200.**—A general course dealing with the development of medieval life from the accession of Constantine to the close of the Crusades.

3 units, autumn quarter (HULME) MW 9 and one hour by arrangement
*Autumn, 290*

**2. European History, 1200–1500.**—A continuation of the preceding course with special emphasis on the transition from medieval to modern life.

3 units, winter quarter (HULME) MW 9 and one hour by arrangement
*Winter, 279*

**3. European History, 1500–1600.**—A continuation of the preceding course, dealing especially with the Renaissance and Reformation.
3 units, spring quarter (HULME) MW 9 and one hour by arrangement
*Spring, 216*

**4. American History, 1776–1840.**—From the Declaration of Independence to the close of the period of territorial expansion.
3 units, autumn quarter (BAILEY) MW 10 and one hour by arrangement
*Autumn, 231*

**5. American History, 1848–1877.**—Abolition; political changes; slavery issues; the Civil War; reconstruction.
3 units, winter quarter (BAILEY) MW 10 and one hour by arrangement
*Winter, 237*

**6. American History, 1877–1930.**—Industrial changes; new political parties and theories; the United States and world politics; the Great War.
3 units, spring quarter (BAILEY) MW 10 and one hour by arrangement
*Spring, 208*

**7. European History, 1500–1648.**—From the Renaissance and Reformation to the Peace of Westphalia.
3 units, summer quarter (HARRIS) MWF 9
*Summer, 44*

## II. INTRODUCTORY LECTURE COURSES

[Open to students in the Upper Division and to those in the Lower Division who have completed the Lower Division requirement in History.]

**103. Europe since 1600.**—A survey of the political, economic, and social development of the European nationalities, with special emphasis upon the period of absolutism, industrialism, and the World War.
5 units, spring quarter (HARRIS) MTWThF 10
*Spring, 82*

**105. The Nineteenth Century.**—A general survey of world politics in the nineteenth century and of the causes and conduct of the World War.
5 units, autumn quarter (FISHER) MTWThF 9
3 units, summer quarter (HIGBY) MTWThF 11
*Autumn, 78; summer, 21*

**108. English History to 1760.**—A general survey of England and the British Empire to the middle of the eighteenth century.
5 units, autumn quarter (BRAND) MTWThF 11
*Autumn, 53*

**110. The English Colonies in America, 1607–1765.**—Study of the Colonies from two points of view: as products of an independent evolution, and as parts of an empire.
5 units, summer quarter (ROOT) MTWThF 10
*Summer, 37*

**112. The Westward Movement.**—A survey of the expansion of the American people and an examination of the influence of the West in national and international affairs.
5 units, winter quarter (ROBINSON) MTWThF 10
*Winter, 259*

**114. The Far East.**—The relations of the West with China, Indo-China, Japan, and the Philippines.
5 units, winter quarter (TREAT) MTWThF 9
*Winter, 128*

**116. History of Japan.**—A general survey of the political, social, and economic development from the foundation of the empire to the present time.
5 units, autumn quarter (ICHIHASHI) MTWThF 8
*Autumn, 90*

**118. History of Spanish America.**—An outline course, dealing chiefly with the Spanish Colonial Period and the Spanish-American Wars of Independence.
5 units, spring and *summer quarters (Martin) MTWThF 9
*Spring, 169; summer, 30*

**130. Byzantine History.**—A survey of the chief periods of Byzantine history.
2 units, summer quarter (Grégoire) TTh 11
*Summer, 19*

## III. ADVANCED LECTURE COURSES

**137. European Thought and Culture.**—The history of various movements of thought and ideals of culture and conduct that have been influential in the life of Western Europe.
3 units, spring quarter (Hulme) MWF 11
*Spring, 115*

**139. The End of the Middle Ages.**—A study of the phenomena, such as the rise of towns, of new nations, and of new thought, that, in the twelfth and thirteenth centuries, prepared the way for the Renaissance.
3 units, winter quarter (Hulme) [Not given in 1930–31]

**140. The Italian Renaissance.**—The development of the new humanism in its relations to the political, social, and religious life of the time. The lectures deal with the sources as well as the evolution of the new and broadening thought of this critical and formulative period, with the revival of nationality and individuality, of literature, of art, of science, and of conscience, with the changing economic and social conditions, and with the development of political theory and the transformation of law.
3 units, winter quarter (Hulme) MWF 8
*Winter, 78*

**142. The French Revolution and the Napoleonic Era.**—A study of the conditions in France before 1789, the Revolution from 1789 to 1799, the organization of France under Napoleon, and the character of the Napoleonic empire.
3 units, winter quarter (Lutz) TThS 10
*Winter, 12*

**143. Europe, 1814–1870.**—A study of European diplomacy, the conflict between reaction and liberalism, the industrial revolution and emergence of class consciousness, and the national and constitutional movements of the middle of the nineteenth century.
3 units, autumn quarter (Lutz) [Not given in 1930–31]

**144. Europe, 1870–1930.**—A study of the government, parties, and political problems of the leading nations since 1870. Special attention is given to economic imperialism in the partition of Africa, the system of secret alliances, the causes of the World War, and the political reorganization of Europe.
3 units, spring quarter (Lutz) [Not given in 1930–31]

**145. The Near East.**—A survey of the Greco-Roman East, the Byzantine Empire, the migrations and kingdoms of the Southern Slavs, Mohammedanism and the Caliphates, the coming of the Turks, the Turkish Empire at its height and in decline, and the development of the international problem of the Near East.
3 units, autumn quarter (Harris) MWF 10
*Autumn, 24*

**151. History of Russia.**—A general survey with special emphasis on the period since 1682.
3 units, winter quarter (FISHER) MWF 11
*Winter, 48*

**152. The Russian Revolution.**—A brief survey of the socialist movement to 1914 with a more detailed study of the revolution of 1917 and the policies and institutions of the Soviet Union.
3 units, spring quarter (FISHER) TThS 9
3 units, *summer quarter (VERNADSKY) MWF 10
*Spring, 40; summer, 28*

**153. The New Europe.**—A study of post-war Europe, particularly of the origins and political and social problems of the new states of Eastern Europe and the Balkans.
3 units, winter quarter (FISHER) [Not given in 1930–31]

**156. History of Canada.**—A survey of the discovery and colonization, the contest between France and England for empire, and the achievement successively of responsible government, federation, and autonomy in the British Commonwealth of Nations.
3 units, autumn quarter (BRAND) [Not given in 1930–31]

**158. English Constitutional History to 1485.**—A detailed study of the period when the English constitution was in the making.
3 units, spring quarter (BRAND) [Not given in 1930–31]

**160. England and the British Empire since 1760.**—An intensive study of Great Britain since the Industrial Revolution with emphasis upon social politics, together with a survey of recent imperial developments.
3 units, winter and *summer quarters (BRAND) MWF 11
*Winter, 32; summer, 18*

**162. History of the West.**—A consideration of the political phases of the expansion of the American people; an examination of new issues and new groups that have risen in the West and their influence upon national party history.
3 units, summer quarter (ROBINSON) MWF 8
*Summer, 31*

**163. The American Revolution, 1760–1790.**—Development of independence in America, the making of the Constitution, and the establishment of a national government.
3 units, autumn quarter (BAILEY) TThS 10
*Autumn, 24*

**164. British-American Diplomatic Relations.**—Lectures and reading on those incidents or conditions in foreign policy where the United States has come into conflict or contact with the foreign policy of Great Britain and her colonies since 1815; with a survey of the general purpose of British and of American foreign policy throughout the hundred-year period.
3 units, spring quarter (SEARS) MWF 10
*Spring, 70*

**165. India.**—An account of the relations between Western nations and the peoples of India. Emphasis is placed upon the rise of British dominion and the present problems of India.
3 units, autumn quarter (TREAT) MWF 9
*Autumn, 74*

**166. History of Australasia.**—An account of British colonization in Australia and New Zealand to the present time.
3 units, autumn quarter (TREAT) [Not given in 1930–31]

**169. History of Japanese Civilization.**—A survey of, and an attempt to interpret, the history of Japanese civilization. Special attention will be given to the religions, philosophy, literature, and arts, fine and industrial.
3 units, winter quarter (ICHIHASHI) TThS 8
*Winter, 40*

**170. Government of Japan.**—A critical study, with materials in Western languages, of the present governmental system of Japan in order to understand the underlying factors in the struggle between bureaucracy and democracy.
3 units, spring quarter (ICHIHASHI) MWF 8
*Spring, 17*

**173. History of Brazil.**—A survey of the development of Brazil with special emphasis on social and economic factors.
3 units, spring quarter (FREYRE) MWF 8
*Spring, 49*

**174. History of South America since 1823.**—An outline course dealing with the history and institutions of the leading nations of South America; includes the discussion of such topics as the Monroe Doctrine, Pan-Americanism, and the relations between the United States and Latin America.
3 units, winter quarter (MARTIN) MWF 9
*Winter, 57*

**175. The American Constitution and American Ideals.**—A special course for those wishing to fulfill the requirement for the Teacher's Certificate.
3 units, spring quarter (BAILEY) TTh 8
3 units, *summer quarter (ROBINSON) TTh 8
*Spring, 31; summer, 17*

## IV. INTRODUCTORY SEMINAR COURSES

[For History majors of junior standing.]

**177. Renaissance.**
3 units, winter quarter (HULME) TTh 10
*Winter, 12*

**180. English History.**
3 units, autumn quarter (BRAND) MW 9
*Autumn, 9*

**183. European History.**
3 units, autumn and *summer quarters (HARRIS) TTh 11, TTh 9
*Autumn, 6; summer, 9*

**184. The World War.**
3 units, autumn quarter (LUTZ) MF 11
*Autumn, 13*

**186. American History.**
3 units, spring quarter (BAILEY) TTh 11
*Spring, 5*

**187. Selected Topics in American Diplomatic History.**
3 units, winter quarter (BAILEY) TTh 11
*Winter, 6*

**190. Far Eastern History.**
3 units, spring quarter (TREAT) TTh 11
*Spring, 14*

**195. Japanese History.**
3 units, winter quarter (ICHIHASHI) TTh 9
*Winter, 7*

**196. Latin-American History.**
3 units, summer quarter (MARTIN) TTh 11
*Summer, 9*

**199. Historical Method.**
3 units, autumn quarter (HULME) MWF 11
*Autumn, 22*

## V. SEMINAR COURSES

[For History majors of senior standing.]

**205. Medieval History.**
5 units, spring quarter (HULME) Th
*Spring, 15*

**207. Modern European History.**
5 units, autumn and *winter quarters (LUTZ) T
*Autumn, 1; winter, 6*

**208. Modern European History.**
5 units, spring quarter (HARRIS) M
*Spring, 6*

**210. English History.**
5 units, winter and *summer quarters (BRAND) Th
*Winter, 9; summer, 7*

**213. History of the West.**
5 units, autumn quarter (ROBINSON) M
*Autumn, 12*

**219. American Diplomatic History.**
5 units, winter quarter [Not given in 1930–31]

**225. History of the Far East.**
5 units, autumn quarter (TREAT) T
*Autumn, 14*

**228. Japanese History.**
5 units, spring quarter (ICHIHASHI) Th
*Spring, 5*

**231. Latin-American History.**
5 units, autumn quarter (MARTIN) [Not given in 1930–31]

**232. Seminar in Brazilian Diplomatic Relations.**
5 units, spring quarter (FREYRE) M
*Spring, 5*

**235. Senior Research.**
Units, not to exceed 5 By arrangement
*Autumn, 2; winter, 6; spring, 8; summer, 1*

## VI. GRADUATE COURSES

**240. Individual Research.**—Students properly qualified under the University regulations to pursue genuine graduate studies are given special attention and due credit allotted for the work accomplished. Such students will receive individual advice and guidance, whether in set courses or in special research.
Units, not to exceed 15 Hours by arrangement
*Autumn, 12; winter, 20; spring, 9; summer, 6*

**242. Historiography.**—A course designed to familiarize the student with the writings and influence of the great historians from Herodotus to the present time. The work consists of lectures, papers, and class discussions.
3 units, winter quarter (MARTIN) M
*Winter, 7*

**244. Eighteenth-Century Colonial History.**
3 units, summer quarter (Root) T
*Summer, 3*

**246. Modern European History.**
3 units, autumn quarter (Lutz) M
*Autumn, 5*

**247. American Diplomatic History.**
3 units, spring quarter (Sears) W
*Spring, 6*

**248. History of the United States.**
Autumn, *winter, and *summer quarters (Robinson) W
*Autumn, 7; winter, 10; summer, 2*

**249. Far Eastern History.**
3 units, spring quarter (Treat) T
*Spring, 1*

## JOURNALISM

Everett Wallace Smith, Professor
Buford Otis Brown, Associate Professor
Thomas George Irwin, Instructor
David Lamson, Acting Instructor (Spring Quarter)

The Journalism curriculum is based on the conviction that the proper college training for journalism provides (1) a broad foundation of general information, (2) more specific knowledge of economics, political science, history, and other subjects with which the journalist largely deals, and (3) some technical ability in journalism and an intelligent comprehension of the obligations and responsibilities of the profession.

The requirements of the Lower Division insure that the student will come into contact with the chief branches of human knowledge and lay a basis for more advanced studies along the lines of his particular needs and interests. The requirements of the School of Social Sciences insure his specializing somewhat in the work of the departments of Economics, History, Philosophy, and Political Science, and in related subjects, at the same time leaving him opportunity for meeting the Journalism requirements and for electives.

Intending journalists are encouraged to engage in college journalism and thus obtain practical experience during their course. Students in the Division of Journalism who do such work systematically and under the supervision of the Division will be given credit for it toward graduation. Lower Division students who plan to enter the Division of Journalism may receive one unit of credit per quarter for regular work on *The Stanford Daily* under the supervision of the Division of Journalism.

In some of the Journalism courses the written work must be done on the typewriter. On this account and because ability to use the typewriter is necessary for practically all newspaper work, prospective Journalism students are advised to gain this ability as early as possible.

*Graduation.*—Students in the Division of Journalism will meet all the requirements of the School of Social Sciences, and will take a minimum of

30 units in Journalism, including News Writing (10 units), Copy Reading (5 units), American Journalism (3 units), and Ethics of Journalism (2 units). The work in Journalism will count toward the 80 units required by the School of Social Sciences, but will not replace any of the 36 units specifically required.

*Degree of Master of Arts.*—The Division of Journalism is prepared to offer courses leading to the Master's degree. Editors and publishers of a large number of vigorous newspapers in rural communities and small cities, as well as in the metropolitan centers nearby, have shown a gratifying willingness to co-operate with students who are carrying on investigations. Extensive files of European and American newspapers in the Hoover War Library are valuable for this work.

## COURSES OF INSTRUCTION

**100. News Writing I.**—Study of the structure of the news story and of news values, with practice in writing. Sources of news and methods of news gathering. Newspaper organization and news-gathering organizations. All writing in the course must be done on a typewriter.
5 units, autumn quarter (IRWIN) MTWThF 8
*Autumn, 31*

**101. News Writing II.**—A continuation of Course 100. Writing of more difficult news stories, and under time limitation.
5 units, winter quarter (IRWIN) MTWThF 8
*Winter, 26*

**102. Copy Reading.**—A continuation of Course 101. Copy reading, headline writing, proofreading, make-up.
5 units, winter and *spring quarters (IRWIN) MTWThF 8
*Winter, 1; spring, 22*

**120. Elementary Practice.**—Practical work in news gathering and writing for *The Stanford Daily* or other newspapers, or on the business staff of a campus publication, with conferences. One unit of credit for three hours of work of a character satisfactory to the Division of Journalism. Open to Journalism major students and to others on request of their departments, with a maximum credit of two units a quarter; or to Lower Division students preparing to enter the Division of Journalism, with a maximum credit of one unit a quarter.
1 or 2 units, autumn, *winter, and *spring quarters (SMITH, BROWN, IRWIN)
*Autumn, 33; winter, 27; spring, 27*

**121. Advanced Practice.**—Practical work in executive positions on the editorial or business staffs of campus publications, with conferences. One unit of credit for three hours of work. Open to Journalism major students and to others on request of their department, with a maximum of three units a quarter, or to Lower Division students preparing to enter the Journalism Division, with a maximum credit of one unit.
1 to 3 units, autumn, *winter, and *spring quarters (SMITH, BROWN, IRWIN)
*Autumn, 17; winter, 31; spring, 21*

**122. Practical Reporting.**—Theoretical study of news gathering and writing, and practical application of these theories in work as reporters for the summer edition of *The Stanford Daily*, under supervision of the instructor with individual conferences. In the class meetings there are discussions of the problems and methods of reporting, the structure of the news story,

sources of news, newspaper organization, news-gathering organizations, and similar topics. All writing in the course must be done on a typewriter.
5 units, summer quarter (SMITH, BROWN) MTWThF 8
*Summer 8*

**123. Practical Editing.**—Practical work in copy-reading, headline writing, editorial writing and the direction of editorial policy, proofreading, and the editorial conduct and direction of a newspaper. The class meets in daily conference with the instructor, and there are individual conferences as problems arise, or as the student or the instructor sees the need.
5 units, summer quarter (SMITH, BROWN) MTWThF 2
*Summer, 12*

**130. Editorial Writing.**—Study of the function of the editorial, with practice in writing.
5 units, autumn quarter (SMITH) MTWThF 11
*Autumn, 18*

**134. Feature Article.**—Study of the feature article for newspapers and magazines, with practice in writing.
5 units, autumn quarter (SMITH) TTh 2–4
*Autumn, 9*

**140. American Journalism.**—A survey of the development of American newspapers, and a study of the work and influence of outstanding journalists.
3 units, winter, *spring, and *summer quarters (SMITH) MWF 11
*Winter, 1; spring, 42; summer, 1*

**141. Ethics of Journalism.**—A consideration of problems of conduct and practice in newspaper writing, editing, and publishing.
2 units, spring and *summer quarters (SMITH) TTh 11
*Spring, 35; summer, 1*

**150. Editorial Management.**—The conduct of the small town and country newspaper, with emphasis on the news and editorial side; the problems of the executive who directs editorial and news policies; the relation of news and editorial departments to advertising and circulation, and of news and editorial departments to each other.
5 units, winter quarter (BROWN) MTWThF 9
*Winter, 17*

**156. Business Management.**—The conduct of the small town and country newspaper on the business side; costs, advertising problems, circulation, and other elements in the maintenance of a newspaper as a profit-making business enterprise. Open to those who have passed Journalism 110, and others by permission.
5 units, autumn quarter (BROWN) MTW 9
*Autumn, 16*

**160. Advertising Problems.**—A course in the principles and practice of advertising for students who are training for journalism, and covering the subject from the standpoint of the newspaper office, especially with regard to small city and country papers. The course includes work in the theory and practice of modern business letters. Enrollment is limited, and preference is given to Journalism majors. Not open to Lower Division students.
1 or 5 units, winter quarter (BROWN) MTWThF 11
*Winter, 37*

**161. Direct Advertising.**—The preparation and uses of other forms of advertising than display, including direct-by-mail, dealer helps, car card, bill board, radio, and motion picture advertising.
3 units, spring quarter (LAMSON) T 1:05
*Spring, 7*

**170. Seminar in Business Problems of the Newspaper.**—Open to senior or graduate students who have had the necessary prerequisites.
3 units, summer quarter (Brown, Irwin)
*Summer, 3*

**176. Seminar in Writing and Editorial Work.**—Open to senior or graduate students.
Autumn, *spring, and *summer quarters (Smith, Brown, Irwin) By arrangement
*Autumn, 4; spring, 1; summer, 1*

**180. Law for the Journalist.**—A course designed for senior and graduate journalism majors, dealing with court procedure, libel, and contempt, in so far as they pertain to accurate reporting; also postal regulations and other laws which affect the newspaper.
2 units, spring quarter (Irwin) TTh 9
*Spring, 24*

**199. Individual Work.**—Journalism majors are permitted to undertake individual work for which they may be qualified along lines not covered by courses already listed. Such students will register for Journalism 199, giving the name of the staff member under whom their work will be carried on, the general subject, and number of units for which they expect to receive credit.
(Division Staff) By arrangement
*Autumn, 3; winter, 2; spring, 3; summer, 10*

[**Teachers' Course in Journalism.**—See Education 215.]

## PHILOSOPHY

Henry Waldgrave Stuart, †Harold Chapman Brown, Professors
William Savery (University of Washington), Acting Professor (Summer Quarter)
Emil Carl Wilm (Colorado College), Acting Professor (Winter and Spring Quarters)
Howard Dykema Roelofs, Associate Professor

The requirements for graduation in this department constitute an adequate preparation for advanced studies in Philosophy and leave opportunity for the other elements of a general or liberal education. Major students are required to present for the degree of Bachelor of Arts thirty-five units in Philosophy (in which Courses 1, 2, 100, 101, 102, and 200 must be included), the general courses in Psychology and in Medieval and Modern European History or English History (which should be taken during the first two years in the University), and at least five units in a laboratory course in a natural science. The second-year courses in French or German are recommended as a part of the Lower Division work of intending major students. Each major student will be expected to devote sufficient time to a minor subject to gain a substantial knowledge of some one of its principal divisions or aspects.

*Graduate Study.*—The department will, as a rule, enroll students for one year only of graduate work, leading to the degree of Master of Arts or to a

† Absent on leave, winter and spring quarters.

minor for the degree of Doctor of Philosophy. The thesis for the Master's degree will ordinarily be so planned as not to represent more than one-third of the student's whole work for the year. All candidates for advanced degrees will be required to pass a written final examination of a general character covering the main branches of philosophical study, including the history of philosophy.

*Library.*—The philosophical section of the General Library contains at present (1) upwards of twenty complete sets of the leading philosophical journals—for most of which current subscriptions are carried, (2) the best available editions of the works of the principal philosophers, and (3) an extensive and constantly increasing collection of standard and contemporary literature—historical, critical, and constructive—covering the various fields of philosophical study.

ELEMENTARY COURSES

**1. Logic.**—The principles of Logic, and the important types of fallacy. Open to all students.
5 units, autumn quarter (STUART) TWThF 9
5 units, *spring quarter (WILM) TWThF 9
*Autumn, 55; spring, 78*

**2. Ethics.**—A short survey of the morality of primitive peoples as compared with more developed forms of morality. The working principles of good conduct. The important historic theories as to the ethical criterion. Prerequisite: second-year standing.
5 units, winter quarter (STUART) TWThF 11
5 units, *summer quarter (BROWN) TWThF 8
*Winter, 135; summer, 15*

**3. Modern Scientific Conceptions of Nature and Mind.**—A study of current views of cosmic structure and the place of man and his activities in nature, in the light of recent developments in physical chemistry, evolutionary biology, and psychology.
5 units, autumn quarter (BROWN) TWThF 10
*Autumn, 63*

**4. Aesthetics.**—The origins and nature of art. Its significance for religion, morality, and social life. The rise of art forms. Contemporary theories of aesthetics. Not open to first-year students.
5 units (BROWN) [Not given in 1930–31]

**7. Introduction to Philosophy.**—Not open to first-year students.
5 units, summer quarter (SAVERY) TWThF 9
*Summer, 34*

**10. Major Traditions of European Philosophy.**—The nature of philosophy as shown in its history. The principal philosophical tendencies or schools in their historical sequence, with some account of their foremost representatives. Prerequisite: second-year standing.
5 units, spring quarter (ROELOFS) TWThF 10
*Spring, 57*

INTERMEDIATE COURSES

**100. Greek Philosophy.**—From Thales to Aristotle.
5 units, autumn quarter (BROWN) TWThF 8
*Autumn, 46*

**101. Hellenistic and Medieval Philosophy.**—From the Post-Aristotelian Schools to the Renaissance.
5 units, winter quarter (ROELOFS) TWThF 8
*Winter, 21*

**102. Modern Philosophy.**—From Descartes to the German Idealists.
5 units, spring quarter (ROELOFS) TWThF 8
*Spring, 20*

[The above three courses are open to all Upper Division students. No one of them may be taken out of its historical order unless Course 10 has been completed, in which case this restriction will not apply. Certain important philosophers (for example, Plato, Aristotle, and Leibniz) will be given but brief mention, their more special or systematic treatment being reserved for other courses to be announced from time to time in the "Intermediate" and "Advanced and Graduate" lists. Attention will be given throughout to the interrelations of philosophy with social and political conditions and with science, literature, and religion.]

**103. Plato and Platonism.**—Prerequisite: Course 100.
5 units (ROELOFS) [Not given in 1930–31]

**104. Aristotle.**—The divisions and basic principles of Aristotle's system. The extent and nature of its historic influence. Prerequisites: Courses 100 and 101.
5 units, winter quarter (ROELOFS) WF 7:30 P.M.
*Winter, 8*

**110. Mysticism.**—Important historic mystical philosophies. The distinctive elements of mysticism as a type of thought and experience. Expressions of mysticism in religion and literature.
5 units (ROELOFS) [Not given in 1930–31]

**120. The History of Intelligence.**—The mental processes of primitive peoples. The beginnings of thinking and the ideal of truth. Great movements in intellectual progress. Contemporary forms of truth-seeking in art, science, and religion. Prerequisite: Course 1, 2, or 3.
5 units, summer quarter (BROWN) TWThF 11
*Summer, 9*

**130. The Social Order and the Individual.**—Insect and animal "societies" and the types of human social organization. Social authority and individual initiative. The ethical basis of political obligation and the authority of the state. Types of political theory. Prerequisite: Course 2 or an equivalent.
5 units (STUART) [Not given in 1930–31]

**131. Ethical Principles and Practical Life.**—A comparative study of selections from Aristotle, the Stoics, the New Testament, Herbert Spencer, Matthew Arnold, Nietzsche, and Tolstoy. The contemporary historical conditions of various sorts which were influential in forming each type of ethical teaching, and the practical tendencies of each type as applied in actual behavior.
5 units (STUART) [Not given in 1930–31]

**140. Religion.**—The psychological and social origins of religion. The relations of religion to science, to morality, and to philosophy. The distinctive content and characteristics of the great religions.
5 units (STUART) [Not given in 1930–31]

**150. Elements of General Philosophy.**—An introductory view of the problems of metaphysics and the theory of knowledge. How these problems arise in the ordinary course of our experience. The more important types of answer which have been offered for them. Open to all Upper Division students.
5 units, winter quarter (STUART) TWThF 9
*Winter, 26*

### ADVANCED AND GRADUATE COURSES

[Special work will be arranged for graduate students in connection with certain of the Intermediate Courses listed above.]

**200. The Problems of Contemporary Philosophy.**—A constructive discussion of the main problems of general philosophy. An important recent work will be used as a text, together with collateral reading. Prerequisites: Courses 100, 101, 102, and 150, or an equivalent.
5 units, spring quarter (STUART) TWThF 11
*Spring, 9*

**200a. Epistemology as a Basis for Metaphysics.**—A treatment of those problems which have a bearing upon our knowledge of the world. The following will be discussed: the existence and nature of consciousness, the meaning of truth, the validity of scientific reasoning, naïve and critical realism, behavioristic and introspectionistic methods in psychology. Prerequisite: Some previous course in philosophy.
5 units, summer quarter (SAVERY) MTWTh 10
*Summer, 6*

**210. The Nature and Function of Mind.**—Prerequisites: Courses 3, 100 (or 101 or 102), 120 or 150.
5 units, winter quarter (WILM) TWThF 10
*Winter, 8*

**211. The Influence of Scientific Ideas on Contemporary Philosophy.**—An analysis and constructive criticism of the problems of contemporary philosophy with special emphasis on their relations to current scientific conceptions. A recent work of importance is taken as the basis of discussion. Prerequisites: Courses 3, 100 (or 101 or 102), 120 or 150.
5 units (BROWN) [Not given in 1930–31]

**212. The Influence of Scientific Ideas on Contemporary Philosophy.**—A continuation of the foregoing. Students who have had Course 200 or 210 but not 211 will be admitted on approval.
5 units (BROWN) [Not given in 1930–31]

**225. Seminar: Kant's Critical Philosophy.**
Autumn, winter, and spring quarters (STUART) TTh 3–5
*Autumn, 5; winter, 4; spring, 3*

**250. Thesis.**
(STUART, BROWN, ROELOFS)
*Winter, 1; spring, 2*

## POLITICAL SCIENCE

EDWIN ANGELL COTTRELL, GRAHAM HENRY STUART, Professors
ARTHUR W. MACMAHON (Columbia University), Acting Professor (Summer Quarter)
THOMAS S. BARCLAY, WALTER THOMPSON, Associate Professors
HAROLD HANCE SPROUT, Acting Assistant Professor
JACKSON H. RALSTON, CHESTER H. ROWELL, Lecturers
FLORA MAY FEARING, LOUIS OLSEN, Acting Instructors in Public Health Administration (Summer Quarter)

[With the co-operation of PROFESSORS CATHCART, MORRISON, TURRENTINE, and WHITTIER of the School of Law.]

It is the purpose of the Department of Political Science to provide instruction for (*a*) those students, whatever their special interests, who desire to be informed about the organization, relationships, and processes of political institutions, and (*b*) those who desire to become teachers or investigators in political science. The courses offered by the department are so planned that, together with certain courses in Economics, History, Law, and Philosophy, they constitute a systematic and fairly complete treatment of the subject. Each course, except Course 1, deals with a special phase of the subject and has a definite relation to all of the other courses offered, but is so presented as to be complete in itself. Course 1 serves as a general survey of political science and as an introduction to all the other courses. Course 15 should be taken as an introduction to all courses in international relations.

*Graduation.*—The department accepts as major students both the specialists and those desiring the fundamentals of a liberal education. The minimum requirements for the recommendation for the degree of Bachelor of Arts in Political Science are the completion (1) of the work of the Lower Division (or its equivalent) and (2) of about forty units of Political Science, which should include at least one course each in public law, administration, international relations, politics, and theory. The department will endeavor to arrange the program of each of its major students to fit his particular aims. Certain courses in Economics, History, Law, and Philosophy may be counted as Political Science at the discretion of the department. Students are advised to complete Courses 1, 2, 3, and 15, in Political Science, while registered in the Lower Division.

Students desiring to prepare for foreign service or for municipal management are invited to confer with the department respecting the opportunities in these lines and the course of study for each.

*Advanced Degrees.*—The department is prepared to accept candidates for the degrees of Master of Arts and Doctor of Philosophy and direct their work in the following branches of the subject: political theory; governmental organization and relationships; elections and parties; legislative organization and methods; administration; institutions for local government; international relations; foreign service; public law.

In addition to the requirements laid down by the Committee on Graduate Study, each candidate for an advanced degree in political science may be required to take a written and an oral examination in the subject during the first quarter of his graduate study, for the purpose of enabling the department to form a reliable judgment of his proposed program of study. Also each candidate for the Doctor's degree may be required to pass a comprehensive written examination and a second oral examination previous to his oral examination by the special committee appointed by the Committee on Graduate Study.

*Teacher's Recommendation.*—For the recommendation for the high-school teacher's certificate with Political Science as a major, the applicant should have completed, in a manner satisfactory to the department, at least forty units in Political Science, including Courses 1, 2, 3, 15, 117, and fifteen units of electives from graduate courses. For a minor, the applicant should have completed twenty-three units, including Courses 1, 2, and 3.

*Library Facilities.*—The University Library contains all the important literature in the various fields of political science, and in the allied subjects of economics, law, history, and sociology. The Hoover collection of war documents and publications is particularly rich in material for advanced

work in political science. The library also contains complete sets of most of the periodicals devoted to the social sciences and an excellent collection of government documents. The Victor J. West Memorial Library offers primary source material for the study of legislative history and procedure.

*Field Work.*—California offers a particularly good field in which to study new experiments in government, especially city and county government. The close proximity of the University to a number of cities of varying sizes and different forms of government adds to the opportunities for research in original material.

ELEMENTARY AND GENERAL COURSES

**1. Introduction to Political Science.**—Fundamental political conceptions: state, government, nature and source of public authority, individual liberty; governmental organization; governmental functions; political parties; international relations. This course, or its equivalent, is prerequisite for all other courses offered by the department. Prerequisite: Completion of the course in Citizenship, or full exemption therefrom.

5 units, autumn quarter (COTTRELL) MTWTh [Sections F] 11
*Autumn, 214*

**2. State and Local Government.**—Township, municipal, county, and state government in the United States, with special attention to California. (Open to first-year students by permission.)

5 units, winter quarter (COTTRELL) MTWTh [Sections F] 11
*Winter, 120*

**3. American National Government.**—A study of the organization, principles, powers, functions, and practical workings of the national government of the United States.

5 units, spring quarter (BARCLAY) MTWTh [Sections F] 11
*Spring, 154*

**15. International Relations.**—The nature and importance of international relations; underlying problems: nationalism, militarism, imperialism; agencies of control: diplomatic, administrative; development of international organization, culminating with the League of Nations. This course is a desirable prerequisite to other courses in the international field.

5 units, autumn quarter (SPROUT) TWThF 8
5 units, summer quarter (STUART) TWThF 10
*Autumn, 109; summer, 44*

ADVANCED COURSES

[Not open to students in the Lower Division, or to students who have not credit for Political Science 1, 2, 3, or 15, or a satisfactory equivalent.]

**100. Political Parties.**—The political party as a part of the political machinery; party organization; party activities; campaign methods; reform movements; public opinion and party leadership; the true functions of parties; party responsibility. Desirable prerequisite: Political Science 100.

5 units, autumn quarter (BARCLAY) TWThF 9
*Autumn, 40*

**101. Legislatures and Legislation.**—Composition, organization, and functions of representative assemblies; theories of representation; legislative procedure for control purposes and lawmaking; direct legislation.

5 units, autumn quarter (BARCLAY) TWThF 11
*Autumn, 37*

**102. Contemporary American Politics.**—A study of the significant movements and issues in contemporary American politics, including agrarian

and labor politics, the programs and tendencies of the major parties, and the relation of parties, public opinion, and economic groups.
5 units, winter quarter (Barclay) TWThF 9
5 units, summer quarter (Macmahon) TWThF 9
*Winter, 52; summer, 53*

**104. Introduction to Public Law.**—A study of the fundamental principles of constitutional, administrative, and municipal corporation law. Emphasis is placed upon the problems with which the student of political science is concerned. The subjects covered include limitations upon exercise of power, separation of departments, fundamental guarantees, due process and equal protection, police power, taxation, eminent domain, citizenship, suffrage, jurisdictional powers, governmental and proprietary functions, and control of administrative officers. This course does not displace the department requirement for candidates for advanced degrees who must take the regular courses in public law as given by the School of Law.
5 units, autumn quarter (Thompson) TWThF 10
*Autumn, 54*

**105. Principles of Legislation.**—A study of statutory forms, drafting, interpretation of statutes, inadequacy of common law remedies, principles of correlation and standardization, and legislative areas. Prerequisite: Political Science 104.
5 units, winter quarter (Thompson) TWThF 11
*Winter, 17*

**110. Administrative Organization.**—Principles of administrative organization; relation of executive to other branches; territorial distribution of administrative functions; organization of executive departments; elective versus appointive executives; single versus plural executives; responsibility of administrative officers; administrative reorganization in the United States.
5 units, autumn quarter (Cottrell) TWThF 9
5 units, summer quarter (Macmahon) TWThF 11
*Autumn, 46; summer, 14*

**111. Administrative Problems.**—Methods of administrative control; the budget; accounting and reporting; purchase and supply; personnel—selection, promotion and demotion, removal and retirement. Desirable prerequisite: Political Science 110.
5 units, winter quarter (Cottrell) TWThF 9
*Winter, 34*

**112. Administrative Functions.**—Functions performed by the national, state, territorial, county, municipal, and town governments are studied under the general classification of overhead administration, protection of persons and property, conservation and development, public works, welfare, and enterprises. Desirable prerequisites: Political Science 110 and 111.
5 units, spring quarter (Cottrell) MTWTh 9
*Spring, 42*

**113. Administration and Justice.**—The principles and methods of administrative and judicial organization and procedure for the enforcement of law—the settlement of controversies, and the conviction and punishment for violation of law.
(See Law 282) (Whittier)

**114. Foreign Service.**—Organization and functions of the Department of State; duties of diplomatic and consular officers; diplomatic usage; negotiation; ratification, and termination of treaties. A limited course; students should consult instructor before enrolling.
3 units, spring quarter (Stuart) TWTh 9
*Spring, 12*

**115. Colonial Administration.**—Colonial expansion and its causes; modern imperialistic expansion of European states; the British self-governing dominions and the crown colonies; French, German, Dutch, and American systems of colonial administration; spheres of influence; mandate system. A limited course; students should consult instructor before enrolling.
3 units, winter quarter (STUART) TWTh 10
*Winter, 13*

**116. Comparative Government I.**—A regional and comparative study of governmental institutions and practices in England and in the British Dominions, with special attention directed to the nature and operation of the parliamentary system in England, the development of parliamentary government in the Dominions, and the problem of federalism in Canada, Australia, and South Africa. An introductory course for the general student.
5 units, winter quarter (SPROUT) TWThF 8
*Winter, 41*

**117. Comparative Government II.**—A comparative study of governmental institutions and practices in the countries of continental Europe and of the Pacific basin, with particular attention directed to modifications in the principle of parliamentary responsibility, institutions of popular control, and recent conceptions of the scope of governmental operations. Desirable prerequisite: Political Science 116.
5 units, spring quarter (SPROUT) TWThF 10
*Spring, 32*

**118. Government in Its Relation to Industry.**—The effect on governmental problems caused by changes in business organization since the industrial revolution. The *laissez faire* versus the "general welfare" concept of governmental function. Measures needed to make the general welfare concept effective.
5 units, spring quarter (COTTRELL) MTWTh 8
*Spring, 160*

**119. Methods of Governmental Research.**—The purpose of this course is the direction and training of students in methods of collecting and presenting data in governmental fields. Limited to 12 seniors majoring in Political Science or Economics.
5 units (COTTRELL) [Not given in 1930–31]

**120. Principles and Problems of American Diplomacy.**—The cardinal principles of American diplomacy and their application; the problems of neutrality, freedom of the seas, non-intervention, Pan-Americanism, the Monroe Doctrine, and international co-operation in their relation to American foreign policy. Prerequisite: Political Science 15.
5 units, autumn quarter (SPROUT) TWThF 10
*Autumn, 45*

**121. The League of Nations.**—Critical study of the Covenant of the League of Nations; the organization and functions of the League government; the various subordinate governing agencies; the mandated areas; the work of the League of Nations. Desirable prerequisite: Political Science 15.
5 units, spring quarter (STUART) TWThF 11
5 units, summer quarter (STUART) TWThF 8
*Spring, 76; summer, 25*

**122. Introduction to International Law.**—Nature and scope of international law; rights and duties of states; jurisdiction; nationality; relations of states in peace and war; international law and the League of Nations. An introductory course designed for the general student.
5 units, winter quarter (STUART) TWThF 8
*Winter, 79*

**123. Current International Politics.**—A study of the outstanding political problems resulting from the World War; the fulfillment of the peace treaties; the settlement of the allied debts; present international situation in Europe; the foreign policy of the United States in regard to Europe and Latin America.
2 units, spring quarter (ROWELL) M 1
*Spring, 231*

**124. International Arbitral Procedure.**—The formation, jurisdiction, and procedure of arbitral commissions and boards, with special reference to claims and judgments to which the United States has been a party. Limited to advanced students specializing in international relations.
2 units, autumn quarter (RALSTON) T 2
*Autumn, 9*

**126. Public Management.**—Principles, practice, and relations under which the city manager operates. A study of the managerial jurisdiction, methods, human element, qualifications, finance, program of work, personnel direction, office management, supervision of work program, relations to the council, the department heads, the employees, the public, the political parties, and the press. Open—as a continuous course—to a limited number of senior political science and engineer majors who are prepared in public administration or municipal engineering.
2 units, autumn, winter, and spring quarters [Not given in 1930–31]

**127. Political Geography.**—A study of the response and adaptation of political and economic institutions and policies to physical environment; the importance of location, topography, water, soil, minerals, and climate both in the political destiny of individual nations and in the general course of international relations.
5 units, winter quarter (SPROUT) TWThF 10
*Winter, 56*

**128. Political Geography of the Pacific Basin.**—A specialized course devoted to an analysis of the importance of physical environment in relation to the political, economic, and cultural development of the countries bordering upon the Pacific, and in relation to contemporary international problems in this area. Prerequisite: Political Science 127.
3 units, spring quarter (SPROUT) W 7–9:40 P.M.
*Spring, 18*

## PUBLIC HEALTH NURSING

**130. Public Health Administration I.**—This course will consist of lectures on the activities, organization, and powers of public health departments, supplemented by laboratory and field work.
2 units, summer quarter (June 23–July 23) (OLSEN) TTh 2–5
*Summer, 23*

**131. Public Health Administration II.**—This course presents the methods of collecting and presenting vital statistics in the public health departments. Special problems may be chosen by the students to meet their future interests.
2 units, summer quarter (July 28–August 25) (FEARING) TTh 2–5
*Summer, 15*

Other courses recommended for Public Health Nursing: Economics 2, Elementary Sociology; Psychology 51, General Psychology.

## GRADUATE COURSES

[Open to advanced undergraduates by permission.]

**201. History of Political Theory.**—Development of political thought from ancient times to the French Revolution; classical period; Medieval period; Renaissance and Reformation; Legalists; Puritan and Industrial Revolution; Rationalism, mercantilism, and *laissez-faire*. Limited to graduates and seniors in political science and to seniors in other departments of the School of Social Sciences who have completed 20 units in political science.

5 units, autumn quarter (THOMPSON) TTh 4–6
*Autumn, 19*

**202. Modern Political Theory.**—Study of the leading schools of political thought from the French Revolution to the present time with special reference to such recent developments as socialism, pluralism, guild socialism, syndicalism, communism, fascism, bolshevism, etc. Prerequisite: Course 201. Limited to graduates and seniors in political science and to seniors in other departments of the School of Social Sciences who have completed 20 units in political science.

5 units, winter quarter (THOMPSON) TTh 3–5
*Winter, 12*

**203. American Political Theories.**—Development and nature of American political ideas; European background; colonial influences; revolution and reaction; democratic ascendency; analysis of American political ideals such as puritanism, constitutional government, democracy, individualism, etc.; modern tendencies. Limited to graduates and seniors in political science and to seniors in other departments of the School of Social Sciences who have completed 20 units in political science.

5 units (THOMPSON) [Not given in 1930–31]

**204. Principles of Politics.**—A critical study of established doctrines of political science; an attempt is made to introduce the functional approach in the study of theories of the state, political and legal institutions, governmental organizations, and the nature and limitations of political action. Limited to twelve graduates and seniors.

5 units (THOMPSON) [Not given in 1930–31]

**205. The American Constitution.**—A consideration of the American federal system, with especial reference to interstate commerce, the powers of Congress, governmental relations between the states and the United States, the constitutional limitations for the protection of life, liberty, and property; police power, taxation, and eminent domain. A limited course; students should consult instructor before enrolling.

4 units, winter quarter (BARCLAY) TF 4–6
*Winter, 13*

[Seminars open to all graduate students and to seniors who have permission of the instructor.]

**240. Seminar in Politics.**

2 units, spring quarter (BARCLAY) W 7:15–9 P.M.
*Spring, 15*

**241. Seminar in Government.**

2 units, autumn quarter (COTTRELL) W 2–4
*Autumn, 19*

**242. Seminar in International Relations.**

2 units, winter quarter (STUART) W 2–4
*Winter, 14*

**243. Seminar in Theory.**
2 units, winter quarter (THOMPSON) M 7:15–9 P.M.
*Winter, 8*

**244. Seminar in International Law.**
2 units (STUART) [Not given in 1930–31]

**250. Graduate Seminar.**—For candidates for higher degrees.
2 units, winter quarter (DEPARTMENT FACULTY) W 7:30–10 P.M.
*Winter, 10*

**251. Special Problem.**—Assignment for independent research and report.
Units by arrangement (DEPARTMENT FACULTY)
*Autumn, 19; winter, 14; spring, 18; summer, 4*

The School of Law offers the following courses in public law for graduate students:

**Constitutional Law** (Law 271 and 272)
**Municipal Corporations** (Law 274)
**Public International Law** (Law 270)
**Administrative Law** (Law 276)
**Problems in Administrative Law** (Law 280)
**Problems in Administration of Civil Justice** (Law 282)
**Problems in Administration of Criminal Justice** (Law 283)

The following courses offered by other departments deal very largely with subjects comprised in the field of political science:

**Public Finance** (Economics 110)
**Taxation** (Economics 111)
**The Utopian Theme** (English 197)
**British Constitutional History** (History 158)
**British-American Diplomatic Relations** (History 164)
**Japanese Foreign Relations since 1894** (History 168)
**Government of Japan** (History 170)
**Military Law and Administration** (Military Science 106)
**Social Order and the Individual** (Philosophy 130)
**Social Psychology** (Psychology 158)

## PSYCHOLOGY

FRANK ANGELL, LILLIEN JANE MARTIN, Professors Emeritus

LEWIS MADISON TERMAN, †WALTER RICHARD MILES, CALVIN PERRY STONE, EDWARD KELLOGG STRONG, JR., Professors.
JOHN EDGAR COOVER, Professor, and Research Fellow in Psychical Research
WARNER BROWN (University of California), Acting Professor (Summer Quarter)
PAUL RANDOLPH FARNSWORTH, MAUD AMANDA MERRILL, Assistant Professors
HELEN MARSHALL, Instructor (Assigned to School of Medicine)
ALBERT WALTON, Acting Instructor
ERNST ALBERT ATKINSON, QUINN MCNEMAR, HENRY ROYER THOMPSON, Assistants in Instruction
ROBERT CHESTER CHALLMAN, Research Fellow on the Buckel Foundation
HELEN LOUISE CAMPBELL, MALCOLM CAMPBELL, WILLIAM GILES CAMPBELL, HELEN JAMES GREEN, LOIS DOE KULMANN, ROBERT B. MCKEOWN, CHARLES JUDD MARSH, BARBARA ANNE MAYER, MARGARET ELIZABETH MURRAY, MELITA H. ODEN, BRONSON PRICE, RUTH HAINES THOMSON, MICHAEL I. TOMILIN, WILHELMINA WARKENTIN, RALPH KIRBY WHITE, Research Assistants
HAROLD D. CARTER, Social Science Research Fellow
PAUL E. FIELDS, National Research Fellow

The courses offered by the Department of Psychology are planned to meet the needs of three groups of students: (1) undergraduate majors in psychology; (2) candidates for the degrees of Master of Arts and Doctor of Philosophy with major or minor in psychology; (3) students who desire a general knowledge of psychology and of its applications.

*Degrees of Bachelor of Arts and Master of Arts.*—For the Bachelor's degree, 45 units of psychology are required, including the following courses: 51, 55, and 60 or Education 185. It is recommended that students in the Lower Division who plan to major in psychology should take a laboratory science in the freshman year, preferably physics, biology, or physiology. Majors in psychology will ordinarily be expected to take additional courses in science before graduation. The work in psychology should be begun in the sophomore year with Courses 51 and 55. Before the beginning of the junior year students are also expected to take Mathematics 41, 42, and 43, or the equivalent.

For the degree of Master of Arts, 45 units of university work are required, including 30 units of psychology in addition to the Bachelor's requirements. Of the 30 units required, 9 to 12 are ordinarily devoted to thesis. Only students whose undergraduate work has been considerably above average quality will be accepted as candidates for the Master's degree in psychology.

*Degree of Doctor of Philosophy.*—The minimum residence requirement is three years beyond the Bachelor's degree, of which at least one year must

† Absent on leave, 1930–31.

be spent at Stanford. Although extensive course work, or its equivalent in independent study, is required, demonstrated ability to do original research is regarded as the most important criterion of fitness for this degree.

Candidates for the Doctor's degree with a major or minor in Psychology are urged to complete their work by the age of thirty-five years. Candidates above the age of forty years will ordinarily not be accepted.

Besides acquiring a fairly broad mastery of the general field of psychology, candidates for the Doctorate will be expected to do intensive work in one or more of the following lines: (1) Experimental Psychology (including animal behavior); (2) Educational Psychology (including tests and measurements); (3) Industrial Psychology. A command of statistical methods and a good reading knowledge of French and German should be acquired as early in the student's course as possible. Candidates whose major is in Experimental Psychology will be expected to take a minor or considerable work in one or more of the following sciences: biology, physiology, neurology, physics, or chemistry; those who major in Educational Psychology will ordinarily take a minor in education or in one of the biological sciences; those who major in Industrial Psychology will ordinarily take a minor in business administration, economics, education, or the social sciences.

*Minor Requirements for Degree of Doctor of Philosophy.*—Candidates for the degree of Doctor of Philosophy in other departments who elect a minor in Psychology will be expected to complete the equivalent of 45 units of Psychology, of which approximately half shall be of graduate character. The required work is laid out for the candidate in terms of fields to be covered, rather than in terms of courses, and a large measure of freedom is allowed in respect to the manner in which the requirements may be met. (See age limit mentioned above.)

*Major for the Teacher's Certificate.*—The department offers a major in Psychology for the Teacher's Certificate, but does not offer a teaching minor. The requirement for teaching major is the same as that for the Bachelor's degree in Psychology; viz., 45 units.

*Library.*—The sum of $600 a year from the Thomas Welton Stanford Fund has been set aside for the purchase of psychological books and periodicals.

*Fellowships and Assistantships.*—The Dr. C. Annette Buckel Foundation, supplemented by additional support from the Board of Trustees of the University, has provided a research fellowship for the psychology and pedagogy of backward children. A research assistantship for the study of gifted children has also been provided. There are two teaching assistantships in general and experimental psychology, and a research assistantship in animal psychology. Usually two or three other research assistantships are available in connection with special investigations.

*Reagents.*—A special point is made of trying to provide research students with suitable reagents. Accordingly, all advanced students are expected, when possible, to give a certain amount of time to this purpose.

*Laboratory and Syllabus Fees.*—A laboratory fee of $5 per quarter is charged for Courses 55, 131, and 165. For courses 135, 188, 189, 203, 210, and 245 the fee is $2.50 each. For certain other courses a syllabus fee of 50 cents to $2 is charged.

## LABORATORIES

Aside from lecture and seminar rooms, offices, and library, the department has well-equipped laboratories comprising some thirty rooms which are adapted to research and laboratory course work, as follows:

1. *General and Experimental Psychology.*—These rooms are located mainly on the second floor of the Physics-Psychology Building. Aside from the usual equipment there is special apparatus for the photographic study of eye-movements in perception and reading; a string galvanometer outfit (large American model); respiration and metabolism apparatus; a Duo-Art player piano and other pieces of apparatus for work in the psychology of music; an electrical pursuitmeter; several pieces for studying motor coordinations and skills. The department faculty will assist competent students in the development of special research apparatus.

2. *Animal Psychology.*—A large amount of space on the third floor of the building is devoted to experimentation with animals. This laboratory is well supplied with various kinds of material including rats, guinea pigs, rabbits, monkeys, and sometimes other species as occasion demands. The laboratory has considerable equipment in problem boxes, mazes, and discrimination apparatus.

3. *Psychic Research.*—On the third floor Professor Coover has laboratory rooms in which experiments in the field of psychic phenomena are conducted from time to time.

4. *Statistics.*—Two rooms are equipped with computing machines and are used particularly by research associates and assistants who are conducting investigations in the general fields of mental tests and individual differences.

## COURSES OF INSTRUCTION

**51. General Psychology.**—Survey of the field of mental life. The point of view, methods, and the experimentally attested facts of the science are presented. The primary emphasis is on normal adult psychology and applications to control of human behavior. Animal and abnormal fields are also outlined. Lectures, demonstrations, and exercises. Freshmen, seniors, and graduates may enroll only by special arrangement. Extra work is required of seniors and graduates. Enrollment limited.

5 units, autumn, *winter, and *summer quarters (Walton) MTWThF 11
*Autumn, 196; winter, 138; summer, 61*

**54. Introduction to the Photoplay and Psychology of Art.**—History of the development and conventions of the photoplay. Aesthetic and social problems connected with motion pictures. Consideration of experimental literature of art principles, and a survey of art tests. No prerequisites.

3 units, winter quarter (Farnsworth) MWF 9
*Winter, 45*

**55. Experimental Psychology.**—An elementary laboratory course dealing entirely with human psychology.

*55a.* Application of experimental method to collection and treatment of psychological data. Drill in technique of scientific observation, and use of laboratory controls. Selected experiments and demonstration of apparatus. Planned to meet the needs both of general students and of students of educational psychology.

4 units, winter quarter (Walton, Thompson) MWF 1:05–4:05
*Winter, 46*

*55b.* Either of two lines of work can be undertaken:

1. Continuation of experiments but with more complicated apparatus.
2. Detailed analysis of a single problem.

4 units, spring and *summer quarters (Walton, Thompson) MWF 1:05–4:05
*Spring, 33; summer, 4*

**60. Introduction to Statistical Methods.**—A demonstration and working course in statistical methods. Data resulting from "chance causes" are secured in a class experiment and are subjected to a complete statistical treatment, including: the determination and evaluation of measures of central tendency, dispersion, precision, reliability, and differences between means and between distributions; seriation and plotting, curve-fitting, correlation. Theory is discussed in connection with practice. Students provide an appropriate text and a polyphase duplex slide rule (with a B scale). Calculating machines and mathematical tables are available. Some knowledge of algebra is a prerequisite. Education 185 may be substituted for this course.

5 units, spring quarter (Coover) MTWThF 8
*Spring, 24*

**90. History of Psychical Research.**—Lecture course. A canvas of opinion on psychic phenomena is made from the daily press, from the popular magazines, and from professional literature; a detailed study of the more important investigations by psychical researchers is made; canons of evidence and of experimental method are adduced, and the present status of the various psychic phenomena is defined. The psychology of testimony and the nature of scientific proof are considered in connection with the cases of research chosen for study. Assigned reading, class reports. Prerequisite: Psychology 51 or a laboratory course in science.

3 units, spring quarter (Coover) [Not given in 1930–31]

**101. Principles of Psychology.**—Introduction to psychological concepts and methods of experimentation, with special emphasis upon learning, retention, and individual differences. Applications are made to efficiency in industry, selection and training of employees, reliability of testimony, etc. Registration restricted to students in the Graduate School of Business and the School of Engineering.

3 units, winter quarter (Strong, Willits) MWF 10–12
*Winter, 13*

**110. Perception.**—The characteristics of receptor mechanisms and their thresholds are considered. Space, form, motion, and time perceptions are analyzed. Consideration is given to illusions, testimony, and report. The contributions of gestalt psychology are reviewed. Lectures, demonstrations, and class reports. Prerequisite: Psychology 51.

3 units, spring quarter (Stone) MWF 9
*Spring, 12*

**115. Memory.**—The general problem is the retention and use of mental experience. A survey is made of the experimental work on memory, imagination, and the thought processes. Attention is given to motor learning, memory systems, feats of memory, types of memory, and eidetic imagery. Lectures and class reports. Written reports are required. Prerequisite: Psychology 51.

3 units, autumn quarter (———) [Not given in 1930–31]

**130. Animal Behavior.**—History of comparative psychology; detailed consideration of learning, imitation, retention, and the higher thought processes

in animals. Lectures, demonstrations, recitations, and class reports. Prerequisite: Psychology 51.
3 units, autumn quarter (STONE) MWF 9
*Autumn, 14*

**131. Animal Behavior.**—A critical survey of the more important literature on developmental aspects of animal response, instinctive and emotional behavior, and the sensory and neural functions underlying native and learned responses. Prerequisite: Psychology 51.
3 units, winter quarter (STONE) MWF 8
*Winter, 7*

**132. Topics in Comparative Psychology.**—Topical reading in special fields of comparative psychology. For students who have had an introductory course in Animal Psychology.
1 or 2 units, winter and spring quarters (STONE) By arrangement
*Winter, 3; spring, 2*

**133. Animal Behavior.**—A laboratory course dealing with vertebrate animal responses in controlled situations. Investigations leading to theses may be undertaken in this course and continued until completed in subsequent quarters. Prerequisite: Psychology 130.
Autumn quarter (STONE) By arrangement
*Autumn, 1*

**135. Physiological Psychology, Elementary.**—Introduction to the structural foundations of animal and human behavior, with special emphasis on the nervous system and sense organs. For majors in Psychology. Class limited to ten students.
3 units, spring quarter (STONE) [Not given in 1930–31]

**140. Psychophysical Methods.**—A seminar course. Brief review of the development of psychophysical methods; systematic presentation and study of both experimental and mathematical procedures; study of the recognized sources of error in psychological experiments and means of eliminating or measuring them; application of the standard Phi Gamma methods, using Urban's tables, to typical data, usually obtained by the student in his current laboratory work; discussion of the "psychometric function." Titchener's *Quantitative Manual,* Brown and Thompson's *Essentials of Mental Measurement,* and the professional journals are used for reference. A one-unit individual report is required. Prerequisites: Psychology 51, 55, and 60 or Education 185.
3 units, winter quarter (COOVER) [Not given in 1930–31]

**153. Psychology of Music.**—Résumé of music tests. Survey of some of the art principles underlying music. Lectures, discussion, reports. Prerequisites: Psychology 51 and interest in music.
4 units, autumn quarter (FARNSWORTH) MWF 9
*Autumn, 13*

**158. Social Psychology.**—Social stimulation and response. Special attention to the relation of psychology to the social sciences. Lectures, discussion, reports. Prerequisite: Psychology 51.
3 units, spring quarter (FARNSWORTH) MWF 10
*Spring, 62*

**160. Abnormal Psychology.**—The symptomatology of nervous and mental diseases; institutional care and treatment of the insane; and the application of psychological aids in the diagnosis and treatment of mental disorders. Lectures, recitations, clinics, and class reports. Prerequisite: Psychology 51 or its equivalent.
4 units, autumn and *summer quarters (STONE) MTThF 10
*Autumn, 83; summer, 25*

**161. Freudian Psychology.**—A survey of the psychoanalytic movement in psychopathology, the techniques of psychoanalysis, and the uses of psychotherapy in education, hygiene, psychology, and medicine. Prerequisite: Psychology 160 or its equivalent. Open only to seniors and graduate students.
3 units, winter quarter (STONE) MWF 10
*Winter, 29*

**170. Mental Deficiency and Delinquency.**—A study of mental retardation and its relation to delinquency. Mental traits of the feebleminded; heredity; classification; psychological diagnosis. Prerequisite: Psychology 51.
3 units, winter quarter (MERRILL) MWF 9
*Winter, 59*

**173. Psychology and Treatment of Exceptional Children.**—A study of bright children and children who are unadjusted. Prerequisite: Psychology 51.
3 units, spring quarter (MERRILL) MWF 9
*Spring, 30*

**175. Psychical Research.**—A library research course leading to a typewritten report on any phase of psychical research of special interest to the student. The more authoritative sources are examined by the student. This course may be preparatory to research. No prerequisites; permission to register required.
Autumn, winter, and spring quarters (COOVER) By arrangement
*Autumn, 10; winter, 22; spring, 28*

**180. Psychical Research.**—A research course offering opportunity for experimental attack upon problems in the field of psychical research for which the laboratory equipment is adequate. Registration by permission.
Spring quarter (COOVER) By arrangement
*Spring, 3*

**185. Elementary Statistical Methods.**—A study is made of the various kinds of statistical series and the properties of each. The purpose of the first part of the course is to discover what constitutes the significant features of a body of data. Opportunity to obtain practice in the computation of the important constants of distributions is given; also in the use of calculating machines and other aids to computation. The approach is inductive, starting with measures and having as its object the discovery of the statistical resources which are available for making data reveal their story. Psychology 60 may be substituted for this course.
4 units, autumn and *summer quarters (EELLS) MTThF 8
*Autumn, 48; summer, 60*

**188. Mental Tests.**—An introductory course dealing with the principles and applications of intelligence tests and of methods of testing personality and character traits. Lectures and demonstrations. Prerequisite: Psychology 51. A course in statistical method must accompany or precede.
4 units, summer quarter (TERMAN) MTThF 11
*Summer, 31*

**189. Intelligence Tests.**—An introductory course dealing with the history and principles of mental measurement and with the technique of intelligence testing, with emphasis upon Binet procedure. Prerequisites: Psychology 51, and 60 or Education 185.
4 units, autumn quarter (MERRILL) MTWTh 11
*Autumn, 27*

**199. Reading and Special.**—For undergraduates who are working on the Independent Study Plan or doing other kinds of special work.
(DEPARTMENT FACULTY) By arrangement
*Autumn, 5; winter, 8; spring, 24*

**200. Mental Hygiene.**—Application of psychological knowledge to the prevention and educational treatment of mental instability and defects of personality. Special attention is given to the period of childhood and youth.
3 units, summer quarter (MARSHALL) MWF 9
*Summer, 20*

**202. History of Psychology.**—A survey of the development of psychology from ancient to modern times to 1900. The various points of view which have been held regarding the mental life are considered, together with the outstanding men and publications. Lectures and class reports. A written report is required. Open to qualified graduates and to senior majors.
3 units, autumn quarter (FARNSWORTH) MWF 8
*Autumn, 10*

**203. Advanced Experimental Psychology.**—Laboratory work with human subjects covering a variety of topics, including complex qualitative problems and quantitative investigations. The course is designed to acquaint students with psychological apparatus, instruments, and means of measurement as well as to provide a first-hand opportunity for them to perform some experiments rather intensively. One lecture or conference with prescribed readings and two three-hour laboratory periods. Prerequisites: Psychology 51 and 55; Psychology 60 or Education 185 must accompany or precede.
3 units, autumn and *winter quarters (COOVER) MW 1:05–4:05, F 2:05–3:05
*Autumn, 3; winter, 1*

**204. Psychology of Emotion.**—Consideration is given to those approaches and experimental studies that have undertaken to demonstrate the bodily accompaniments of emotional states. The techniques for registering blood pressure and other circulatory changes are reviewed along with the evidence from phenomena of respiration, muscle tonus, and the reflexes. The use of the association test as an indicator of complexes and as used in the analysis of personality is discussed, along with the emotion techniques for detecting guilt. Lectures, demonstrations, class reports, and a written report. Open to qualified graduates and to senior majors.
3 units (MILES) [Not given in 1930–31]

**205. Psychology of Action.**—In general the conditions favoring and hindering mental and physical work are studied. Metabolic level, food, appetite, fasting, physical and mental fitness, sleep, fatigue, altitude and climatology, ventilation, drugs, and old age are some of the topics considered. The relation of these problems to industrial efficiency is examined. Lectures, demonstrations, class reports, and a written report. Open to qualified graduates and to senior majors.
3 units, spring quarter [Not given in 1930–31]

**206. Psychology of Language.**—The various investigations that have been made on the eye movements during reading are critically reviewed. An equipment for the photographic recording of eye movements is used in the work of the class, and the processes of obtaining meaning from the printed page and of expressing meaning in symbols are studied. Lectures, experiments, and written report. Open to qualified graduates.
3 units, winter quarter [Not given in 1930–31]

**208. Modern Viewpoints in Psychology.**—General survey of the viewpoints represented in writings of present-day psychologists. Lectures, discussion, and special reports. Prerequisite: 12 units of Psychology, or Philosophy 10 and 8 units of Psychology.
3 units, winter quarter (FARNSWORTH) MWF 10
*Winter, 19*

**210. The Learning Process.**—A laboratory course providing the data and the opportunity for a qualitative and quantitative study of the development of efficiency in various learning situations involving different levels of complexity in materials and mental processes. Special attention to the statistical treatment of results and to graphic presentation, analysis of processes, and the morphology of skill. One-hour seminar for discussion and reports of reading, and two laboratory periods weekly. Prerequisites: Psychology 51 and 55.

3 units, spring quarter (COOVER) Seminar F 1:05; Lab. MW 1:05–4:05
*Spring, 1*

**212. The Psychology of Learning.**—A survey of experimental data on the learning process. Educational applications as well as theoretical aspects of the problem receive attention.

3 units, summer quarter (BROWN) MW 2
*Summer, 9*

**215. Advanced Human Psychology.**

4 units, summer quarter (BROWN) MTWTh 9
*Summer, 11*

**220. The Psychology of Motives.**—Critical study of the dynamic and purposive aspects of instinctive and emotional dispositions as they are related to conduct; review of experimental investigations of animal and human motivation. Prerequisites: Psychology 130 and 160 (or special permission).

3 units, summer quarter (STONE) MWF 8
*Summer, 2*

**221. Personality Types.**—A seminar. A historical and critical survey of the evidences for the existence of personality types. Reports, discussions, and a one-unit typewritten report. Open to seniors and graduate students only.

2 units, spring quarter (STONE) TTh 8
*Spring, 16*

**225. Educational Psychology, Advanced.**—Original endowment; mental development; individual differences in relation to heredity, sex, and environment; learning, formal discipline, work and fatigue, with special reference to the school program. Independent study, discussion, and class reports. Prerequisites: Psychology 51, 55 or Education 165, and Psychology 60 or Education 185.

3 units, winter and spring quarters (TERMAN) MWF 11
*Winter, 9; spring, 8*

**230. Association of Ideas.**—A seminar. The purpose is to clarify the student's conceptions of the ways in which mental elements are connected or combined or fused. Topics covered include the English "school" of association psychology and its dominance of popular psychology today; results of laboratory research; modern formulations from experimental results; importance to psychology; bearing upon learning and school practice. Assigned reading, reports, discussion, and a one-unit individual typewritten report. Registration by permission.

3 units, autumn quarter (COOVER) Th 7:30–9:30 P.M.
*Autumn, 2*

**231. Method of Experiment.**—A seminar. An examination of scientific method and its applications to various types of research in experimental psychology; a study of typical researches; applications to present problems; inspection of statistical procedures appropriate to the various types of experimental procedures; consideration of criteria of validity of results. A

one-unit typed report is required. Prerequisites: Psychology 55, and 60 or Education 185. Registration by permission.
3 units, winter quarter (Coover) [Not given in 1930–31]

**235. Psychological Analysis of Biographies.**—The mental development of eminent individuals and the psychological factors which have influenced their achievement. Some knowledge of mental tests and of abnormal psychology is presupposed.
3 units, summer quarter (Terman) W 3:05–5:05
*Summer, 10*

**240. Advanced Statistical Methods, I.**—This is a continuation of Education 185 and deals primarily with series of related measures. The statistical methods of analysis of correlated data and the means of combining several measures into total scores are treated. Education 185, Psychology 60, or other equivalent course is a prerequisite.
4 units, winter quarter (Eells) MWF 8
4 units, *summer quarter (Eells) MTThF 10
*Winter, 18; summer, 8*

**241. Advanced Statistical Methods, II.**—This course is a continuation of Course 240. It deals especially with problems in multiple correlation and with the statistical treatment of known linear, skew, and categorical data. Psychology 240 is a prerequisite. Course alternates with 240.
4 units, spring quarter (Eells) [Not given in 1930–31]
*Spring, 15*

**244. Interpretation and Construction of Mental and Educational Tests and Measurements.**—This is a continuation of Education 186, dealing in the main with the interpretation of test scores in a diagnostic manner. Methods for the utilization of various measures in educational and vocational guidance programs are indicated. Some attention is given to the methods of construction of educational tests. Education 185, 186, and 189, or equivalents are presupposed.
4 units, spring quarter (Heath) MTWTh 2
4 units, *summer quarter (Heath) MTWThF 9
*Spring, 6; summer, 12*

**245. Mental Test Practice.**—The selection and use of mental tests, with laboratory practice and field work. Important types of tests are subjected to experiment and critically evaluated. Prerequisites: Psychology 60 (or Education 185), 188 or 189, and one laboratory course.
4 units, winter quarter (Merrill) MTWTh 1:05–3:05
*Winter, 9*

**247. Psychological Clinic.**—Field work in juvenile court, mental hygiene clinic, and public school.
Autumn, winter, and spring quarters (Merrill) By arrangement
*Autumn, 4; winter, 1; spring, 5*

**250. Experimental Problems.**—A provision for individual laboratory study of some minor problem proposed by the student or suggested by the instructor. A minimum of eight hours per week in the laboratory and a typewritten report are required.
2 units, spring quarter (Farnsworth) By arrangement
*Spring, 2*

**255. Mind and Body.**—A seminar course. The problem of the mind-body relationship is first given a brief historical consideration. The psychological postulate of "psychophysical parallelism" is critically examined. The pertinent data of psychology, pathopsychology, and medical practice with mental

disorders (including the aphasias) are collected and studied. The phenomena of hypnotism and the dissociation of personality are reviewed, and Freudian psychoanalysis is briefly but critically examined from the standpoint of physiological psychology. A one-unit individual typed report is required. Prerequisite: Psychology 51.
5 units (COOVER) [Not given in 1930–31]

**260. Seminar in Applied Psychology.**—Special problems in application of psychology to advertising, selling, vocational guidance, and personnel management. Discussion will be restricted to psychological problems in personnel in the autumn quarter, to vocational guidance in the winter quarter, and to advertising and selling in the spring quarter. Registration by permission.
Autumn, winter, and spring quarters (STRONG) By arrangement
*Autumn, 6; winter, 6; spring, 4*

**319. Seminar.**—Research reports and reviews of literature. Registration by permission. Enrollment limited to 20.
1 unit, winter and spring quarters (TERMAN) W 7:30–10 P.M.
*Winter, 12; spring, 14*

**322. Mental Development.**—Seminar and problem course. A critical survey of the most important studies of infancy, childhood, adolescence, and senescence. Intended primarily for major students in psychology or education who are in the second or third year of graduate work. Alternates with Course 323.
2 units (TERMAN) [Not given in 1930–31]

**323. Psychology of Endowment.**—A seminar and thesis course. Tests of general intelligence, special abilities, character and personality; the psychology of genius; mental inheritance; race differences, etc. Intended primarily for major students of psychology or education who are in the second or third year of graduate work. Alternates with Course 322.
2 units, winter and spring quarters (TERMAN) TTh 11
*Winter, 9; spring, 10*

**324. Mental Test Problems.**—For qualified students who wish to undertake an experimental problem of limited scope.
2 or 3 units, autumn, winter, and spring quarters (TERMAN, MERRILL) [Not given in 1930–31]

**325. Psychometry.**—Essentially a research course. Attention is given to the analysis of mentality; to the measurement of interest; of special sensory capacity; and of certain specific habits and skills. The bearing upon problems of guidance is stressed. Education 240 and 244, or equivalent, are presupposed. Alternates with Course 241.
2 units, winter and spring quarters (————) [Not given in 1930–31]

**330. Current Periodical Literature.**—For senior and graduate majors.
1 unit, winter and spring quarters (FARNSWORTH) F 4:15
*Winter, 3; spring, 2*

**340. Research and Special.**
(DEPARTMENT FACULTY) By arrangement
*Autumn, 8; winter, 5; spring, 8; summer, 2*

## SOCIOLOGY

Walter Greenwood Beach, Professor of Social Science
Charles Nathan Reynolds, Associate Professor
Richard Tracy LaPiere, Instructor

Students may major in the Division of Sociology within the Department of Economics, or simply within the School of Social Sciences. Those who wish to major in this division within the Department of Economics must add to the courses required by the department for Economics majors Course 2 (Elements of Sociology) and Course 101 (Labor Problems). They are urged also to include in their curriculum courses in psychology, ethics, and statistics. Students in the Division of Sociology of the School of Social Sciences, in addition to meeting the requirements of the School of Social Sciences, must take at least thirty units in Sociology.

*Advanced Degrees.*—Candidates for higher degrees may choose Sociology as a major or minor. The following may be considered as fields of study within Sociology as a whole:

1. Sociological Theory and Its Development
2. Social Psychology and Its Applications, including Race Relations
3. Social Economy and Social Legislation
4. Social Pathology: Crime, Poverty, Dependency, Physical and Mental Weakness
5. Social Evolution and the Study of Institutions: Family, Industry, Religion
6. Population, Immigration
7. Urban and Rural Sociology

It is not expected that candidates should be equally prepared in all of these fields, selection and emphasis being dictated by interests and previous preparation; but an acquaintance with the first mentioned (number one) is expected in all cases.

*Medical Social Work.*—Opportunity for full-time training in Medical Social Work is available at the Stanford University Clinics in San Francisco under the supervision of the Director of Social Service. Opportunity will be given for experience in connection with the Children's Clinic, Women's Clinic, and the General Medical Clinics, as well as with the hospital.

*Courses.*—The courses offered in this Division are listed under the Department of Economics (pp. 437–440).

# STATISTICS

As a result of the increasing interest in the field of statistics, the following courses presented in several departments are listed for the information of students in this field. No formal departmental or divisional organization is involved.

**Nomographs** (Civil Engineering 103)

**Empirical Equations** (Civil Engineering 116)

**Statistics in Engineering** (Civil Engineering 132)

**Introduction to Statistical Methods** (Economics 6*a* and 6*b*)

**Index Numbers** (Economics 211)

**Graphic Methods of Presenting Facts** (Education 184)

**Elementary Statistical Methods** (Education and Psychology 185)

**Advanced Statistical Methods** (Education and Psychology 240 and 241)

**Mathematics of Statistical Inferences** (Mathematics 125)

**Adjustment of Observations** (Mathematics 163)

**Introduction to Statistical Methods** (Psychology 60 and Economics 6*a* and 6*b*)

There are many fields in which statistics is either a prerequisite or is more or less extensively used. The following courses are some of a number which fall in this class:

**Valuation** (Economics 109)

**Cost Analysis** (Economics 128)

**Business Cycles** (Economics 160)

**Price Forecasting** (Economics 239*a* and 239*b*)

**Administration and Interpretation of Educational Tests and Measurements** (Education 186)

**Interpretation and Construction of Mental and Educational Tests and Measurements** (Education and Psychology 244)

**Psychometry** (Education and Psychology 325)

Advanced work in statistics, in connection with theses or otherwise, may be pursued under direction of the following professors, as well as others not here listed:

Professors Canning, Davis, Working (Economics)

Professors Coover, Eells, Strong (Education and Psychology)

Professor Strong (Graduate School of Business)

Professors Hotelling, Townley (Mathematics)

# MUSEUM AND ART GALLERY

## LELAND STANFORD JUNIOR MUSEUM

PEDRO J. LEMOS, *Director*

In 1880, Leland Stanford, Jr., then eleven years of age, accompanied his parents on a trip through Europe, collecting numerous mementos of the places visited. In 1883, on a second visit, he began to pursue this object more ambitiously, and finally with the idea of establishing a museum. The Leland Stanford Junior Museum was designed by Mrs. Stanford as a memorial to perpetuate this idea, and the various collections are largely her gift to the Museum.

The collection made by Leland Stanford, Jr., between 1880 and 1884 has been placed in two rooms, and in one room his own arrangement is reproduced in a case; in the other room are found mementos of his early life. These two rooms contain especially Egyptian bronzes, Tanagra figurines, Greek and Roman glass, armor, mosaics, Sèvres and Dresden ware, and the like.

The Stanford Memorial Room contains collections of personal belongings pertaining to the founders of the University. Added to these are collections connected with the early days of the University, views of buildings in construction, and details of the mosaics used in the Memorial Church.

Another room contains the famous historical relic, "The Governor Stanford," the first locomotive used on the Central Pacific Railroad, in 1864. A group of cases in this room contain collections related to early California history. The center case contains practically all the implements extant of the old Mission Dolores, presented by Don Pablo Vasquez, whose father was the last major-domo of the Mission. Included in the Mission Collection are some extremely rare relics of Father Junipero Serra and of the Carmel and Santa Barbara Missions.

The Di Cesnola Collection contains Greek and Roman pottery and glass from the Island of Cyprus.

The American Indian Collection is made up of mound relics, Indian baskets, Indian Pueblo pottery, utensils, Alaskan canoes, totem poles, etc. There is also a display of material of the Stone Age purchased by Mrs. Stanford in Denmark.

The Ikeda Chinese and Japanese Collection, purchased by Mrs. Stanford in 1904, comprises rare art material from the Orient.

In the Chinese and Japanese Room there is exhibited a collection of bronzes, arms, china, lacquer, cabinets, musical instruments, rich embroideries, and specimens of wood-carving; also the famous De Long Collection of Japanese rarities.

The Japanese Collection, purchased by Mrs. Stanford in 1902, consists of cloisonné, Satsuma, porcelain, embroideries, Buddhistic images, and ivory carvings, and includes a large bronze Koro, over 150 years old. The Korean Collection, the gift of Mr. Timothy Hopkins, contains costumes, household goods, cabinets, screens, etc. Ceramics collected by Mrs. Stanford include Sèvres, Dresden, Royal Berlin, Persian, Pompadour crystal, Bohemian, and numerous other wares.

The Egyptian Room contains: Egyptian stone carvings, alabaster canopics or jars, bronze, wooden, terra-cotta, and glazed statuettes, images,

mummies, scarabs, and numberless other emblems, hand-woven linen and Coptic textile color designs, and original portrait paintings taken from mummy cases. This Egyptian material was collected for Mrs. Stanford by the Curator of the Cairo Museum, Emile Brusch Bey, and experted by Dr. Sayce, the noted Egyptologist. This room also contains a case displaying a collection of very old and rare Babylonian tablets.

The upper floor of the Museum contains a large collection of paintings collected by Mr. and Mrs. Stanford, and includes original paintings of each member of the family, by such artists as Messionier and Bonnat, also original paintings by Benjamin West, Gustave Richter, William Keith, and Thomas Hill.

## THOMAS WELTON STANFORD ART GALLERY

PEDRO J. LEMOS, *Director*

The Thomas Welton Stanford Art Gallery is composed of four galleries designed for the exhibition of paintings and other works of art.

In the main galleries the collection of paintings donated by Thomas Welton Stanford is placed. Among these are pictures by Minderhout Hobbema, James Giles (R.S.A.), John Frederick Herring, Lienur, Van der Houten, Francis Snyders, W. J. Laidley, David Bates, John Yarley, Julian M. Price, J. W. Ready, William Melby, James E. Meadows, Elijah Walton (F.G.S.), W. Henry, E. Wake Cook, T. R. Miles, Sr., John Glover, Herr Schnars-Alquist, Louis Buvelot, William Hart, William Shiels (R.S.A.), S. Bird, Patrick Nasmyth, Emil Bayard, Gerard Lairesse, C. Wimmer, Salvator Rosa, G. Koken, John Weenix, Bachman Kobell, Jr., Charles Stuart, Heinrich Rasch, Melchor Hondecooter, Marie Angelica Kaufman, George Earl, G. Guardabassi, E. G. Lewis, and J. W. Curtis.

Two galleries have been planned for the exhibition of collections of paintings, etchings, and sculpture from eastern and foreign art centers. These exhibitions are announced from time to time as they are received.

# LECTURES AND DEBATES

## RAYMOND FRED WEST MEMORIAL LECTURES

In 1910 Mr. and Mrs. Fred West, of Seattle, Washington, presented to the University, in memory of their son, Raymond Fred West, a student of the University who died before the completion of his college course, the sum of ten thousand dollars, to be held as a fund in perpetual trust, for the establishment of a lectureship on a plan similar to the Dudleian Lectures at Harvard University.

"It is our wish that such lectures shall not form part of the usual college or university course, nor shall they be delivered by any professor or instructor in active service in the institution. Such lecturer may be a clergyman or a layman, a member of any ecclesiastical organization, or of none, but he should be a man of the highest personal character and of superior intellectual endowment. He shall be chosen by the Faculty and the Board of Trustees of said University in such manner as the said Board of Trustees may determine, but the appointment in any case shall be made at least six months before the delivery of said lectures. . . . . The course of lectures shall be known as the 'Raymond Fred West Memorial Lectures on Immortality, Human Conduct, and Human Destiny.'"

The following general plan has been adopted by the University: The lectures are to be delivered in alternate years; the lecturer is to give at least three lectures; the lectures are to be published in book form within two years after delivery, the lecturer to have the option of publishing them himself, in which case the University will purchase a hundred copies, or of having the University publish them, in which case it will retain the copyright (in any case the manuscript of the lecturer is to be filed in the University archives); the honorarium to be decided in each case by the Board of Trustees, and unless otherwise ordered the entire earnings of the fund for the two years to be devoted to honorariums and to the purpose of publication; the lecturer is to be nominated by the President with the approval of the Advisory Board and the consent and ratification of the Board of Trustees.

These lectures have been given by Charles Edward Jefferson, Samuel McChord Crothers, Hastings Rashdall, Charles Lewis Slattery, John Dewey, Henry Osborn Taylor, Irving Babbitt, Arthur Twining Hadley, Hugh Black, and G. A. Johnston Ross. The general subject of the last series given April 1, 2, and 3, 1930, was "Behavior and Destiny: A Christian View." The titles of the lectures were "The Christian Preface to Morals," "Christian Conduct," and "The Christian and His Future."

## DEBATES

Intercollegiate debates in which Stanford students participate are conducted under the auspices of the Associated Students of the University. Except where otherwise indicated, all debates recorded herewith were non-decision.

### STANFORD-BRITISH UNIVERSITIES DEBATE

The forensic season opened with a debate between Stanford University and the British Universities; Irving Rosenblatt, Jr., and George Shibley, of

Stanford, taking the negative of the question "Resolved: That the Principle of Democracy Has Been Tried and Found Wanting," and B. J. Crehan, of Liverpool University, and D. Hope Elletson, of Oxford University, taking the affirmative. The contest took place at Stanford and was attended by an audience of one thousand.

### CHICAGO CRIME DEBATES

On November 24 and 25, respectively, Edwin Gerhardt, Leonard Bloom, and Howard Conn on the affirmative and William Dienstein, Cyril Bryner, and Abe Mellinkoff on the negative met University of California teams at Stanford and at Berkeley on the question "Resolved: That This House Approves the Method Now Being Employed by the People of Chicago to Combat Crime." On November 24, Wayne Bannister and James Vizzard debated the affirmative of the question against the University of San Francisco, in San Francisco, before a large audience, losing a judges' decision by a 3 to 0 vote. On December 3, Isador Botasof, Joseph J. Wolf, and William A. Kaye debated the negative against Fresno State College at Fresno and on December 9, James Bednar and John Huneke upheld the negative before a student body assembly at San Jose State College.

### HAWAIIAN TOUR

Upon invitation of the University of Hawaii Debating Union a Stanford team consisting of Daniel Bryant and Robert McClintock departed from Los Angeles on December 27, arriving at Honolulu on January 3. On the evening of January 9, they met a team representing the University of Hawaii on the question "Resolved: That the Principle of Democracy Has Been Tried and Found Wanting," Stanford upholding the negative. Ex-Governor Farrington presided at the debate, which was attended by an audience which overflowed the auditorium. A shift-of-opinion vote of the audience gave a decision for the visiting team.

On January 12, they again met a Hawaiian University team on the question "Resolved: That the Chain Store Is More Detrimental Than Beneficial to a Community," Stanford defending the affirmative. The debate was again before a packed auditorium, the audience decision being again in favor of Stanford. The Stanford debaters sailed for home on January 14, arriving in San Francisco January 20. The tour was marked by unusually cordial hospitality on the part of the University of Hawaii.

### FREE TRADE DEBATES

The question "Resolved: That the Nations Should Adopt a Policy of Free Trade" was debated by Stanford teams as follows: Frank Fullenwider and David McDaniel, affirmative, against the Northwest Nazarene College on February 2, at Stanford; Wayne Bannister and Joseph Wolf, affirmative, against Occidental College on February 11, at Stanford; Raymond Hanson, John Huneke, and James Vizzard, negative, against College of the Pacific on February 18, at Stockton; Howard Conn, John Huneke, and William Kaye, affirmative, against the American Bankers' Institute on March 4, at San Francisco; Howard Conn and John Huneke, affirmative, against Pomona College on April 9, at Stanford; Leonard Bloom and Abe Mellinkoff, negative, against St. Mary's College on April 29, at Oakland.

### PROHIBITION DEBATE

Debating the affirmative of the question "Resolved: That a More Satisfactory Solution to the Liquor Problem Can Be Found Than the 18th Amendment," Wayne Bannister and James Vizzard met a team representing the American Bankers' Institute in San Francisco on May 18.

### CHAIN STORE DEBATES

William Dienstein and Edwin Gerhardt against Oregon State College, at Stanford, on February 25, and William Dienstein and William Kaye against University of California at Los Angeles on April 2, at Stanford, upheld the affirmative of the question "Resolved: That the Expansion of the Chain Store Is Detrimental to the Best Interests of the American People."

### PACIFIC COAST EXTEMPORANEOUS CONTEST

For the fourth time in six times participating Stanford won first place in the Pacific Coast Extemporaneous Contest held at the University of Washington, Seattle, on April 6. Irving Rosenblatt, Jr., represented Stanford, speaking on the subject "Humanism: the Modern Religion." Washington University was second, Oregon State College, third.

### SOUTHERN CALIFORNIA TOUR

During the spring vacation a team composed of Wadieh Shibley, Howard Conn, and Abe Mellinkoff toured Southern California debating the negative of the question "Resolved: That the Nations Should Adopt a Policy of Free Trade." Debates were held with University of California at Los Angeles, Loyola College, Pomona College, and the California Institute of Technology. A single critic-judge decision was lost to U.C.L.A. and a 2 to 1 judges' decision was won against Loyola College.

### JOFFRE DEBATE

The thirty-seventh annual Joffre Medaille Debate with the University of California was held at Stanford on April 21, and was won by George Shibley, '31, of Stanford, Mary-Katherine Morris, '33, of Stanford, taking second. Third place went to Herbert Resner of California and fourth place to Irving Rosenblatt, Jr., '31, of Stanford. The general question was "French Colonial and Mandate Policy." The specific question debated was "Resolved: That French Mandate Policy Is Justified." Rosenblatt, Shibley, Richard Eakin, and George Ackley upheld the negative while Miss Morris and Mr. Resner upheld the affirmative. In the last ten years Stanford speakers have eight times been returned the winners in this competition, having lost in 1926 and 1930.

### ST. MARY'S RADIO DEBATE

On the evening of April 16, Isador Botasof, representing Stanford, engaged in a radio debate over station KROW with a representative of St. Mary's College, Oakland. The question debated was "Resolved: That the Distinction between Amateur and Professional Be Abolished in All Games to Which Admission Is Charged." Mr. Botasof defended the negative.

## WOMEN'S DEBATES

Stanford women debated women of the University of California on December 3 and 4 on the question "Resolved: That a Student Should Not Take Work at a Junior College as Preliminary to Further Work at the University." Mary-Katherine Morris and Esther Kelly upheld the affirmative at Stanford on December 3, and Margaret Strong and Marian Reed upheld the negative at Berkeley the following evening.

On February 16, a debate was held with the San Francisco State Teachers' College on the question "Resolved: That Gandhi Has Been a Benefit to India." Stanford was represented by Jean Adams and Eleanor Furst, who defended the affirmative.

The Gandhi question was again debated at Stanford with the women of Oregon State College on February 25, the affirmative being upheld for Stanford by Alice Small and Thelma Hogevoll.

On February 26, before an audience of the Palo Alto Union High School, Eleanor Furst and Jean Adams met women of the Parliament Society of the University of California on the question "Resolved: That Home Rule for India at the Present Time would be Detrimental," Stanford taking the affirmative. Upholding the negative of the same question Alice Small and Thelma Hogevoll debated representatives of the Parliament Society at Berkeley.

Still using the Gandhi question, Jean Adams and Eleanor Furst debated a team of the Modesto Junior College at Modesto on March 6.

## FRESHMAN DEBATE

The Freshman squad was composed of Franklin Gilchrist, Ronald Kay, Rollin Woodbury, William Plymat, Albert Cook, Herbert Sanderson, Huson Jackson, James Minor, John King, Edward Fisher, Willard Stone, Richard Eaton, Sherwood Roberts, Ben Wilcoxon, and Franklin Baker, of whom the first six made up the teams debating the University of California Freshmen on the question "Resolved: That the Results of the London Naval Conference Tend Toward Peace." Gilchrist, Kay, and Cook upheld the affirmative at Stanford on April 6, and Woodbury, Plymat, and Sanderson the negative at Berkeley on April 2.

# DEGREES CONFERRED

([1]October 3, 1930; [2]January 9, 1931; [3]April 3, 1931; June 15, 1931)

## BACHELOR OF ARTS

### SCHOOL OF BIOLOGICAL SCIENCES

[1]John Payson Adams
[1]George Lewis Browning
Jefferson Martineau Crismon
With distinction
[1]William McPherson Fitzhugh, Jr.
Philip Kingsnorth Gilman, Jr.
[1]John James Hopkins
James Paul Hudson
Helen Mildred Knapp
[3]Royce Kenneth Skow
[1]Evelyn Hamilton Snyder
Phillip James VanderZwiep
[3]James Kendall VanDeventer
Harry Earl Warmke
With great distinction
[3]Campbell Hagerman Watson
[3]Henry Emil Wieser
[1]Dorothea Woehlke

#### BACTERIOLOGY AND EXPERIMENTAL PATHOLOGY

Hugh Herbert Boyes
Joseph Patrick Cleary
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With distinction

[3]Frederick Charles Scobey
With distinction

### MECHANICAL ENGINEERING

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[2]Howard John Galbraith

[3]John Harold Revell

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Muriel deFontenay Bartlett
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Rowena Ruth Lockett
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B.S., Oregon State Agricultural, 1925
[3]Joseph Allen Craig
A.B., Stanford, 1923
[3]Lucina Olive Stanford
A.B., Fresno State College, 1928

§ Deceased, December 16, 1930.

### BACTERIOLOGY AND EXPERIMENTAL PATHOLOGY

[3]Ryland Randolph Madison
A.B., Stanford, 1930

[2]Luther Glynne Price
A.B., Stanford, 1925

[1]Mary Evangeline Raney
A.B., Stanford, 1928

### PHYSIOLOGY

[1]Sally Miller Field
A.B., Stanford, 1929

### ZOÖLOGY

Paul Stanley Bartholomew
A.B., Heidelberg College, 1928

[2]Harlan Banta Holmes
A.B., Stanford, 1922

George Sprague Myers
A.B., Stanford, 1930

Helen Katherine Rathbun
A.B., Mills, 1930

Norman Lester Wihr
A.B., California, 1928

[2]Shirley Mae Witt
A.B., Fresno State College, 1930

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A.B., Colorado, 1913

[1]Frank A. Bauman
A.B., Olivet, 1914

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A.B., Stanford, 1927

[2]Harry Ray Benson
A.B., Hanover, 1927

[3]Henry Francis Bishop
A.B., Fresno State College, 1928

[2]Dwight Montgomery Bissell
A.B., Fresno State College, 1926

[1]Lucille Marie Bolton
A.B., Fresno State College, 1925

[3]Lilah Clark Bradford
A.B., Oregon, 1911

[1]John Prentiss Brown
A.B., Oregon, 1916

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A.B., Hastings, 1928

[1]Harry Morgan Challender
A.B., Wyoming, 1926

Ernest Martin Christiansen
A.B., Washington Missionary College, 1919

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A.B., Mt. Union, 1913

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Burton Edmund Forney
A.B., Mt. Morris, 1925

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A.B., Minnesota, 1916

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[1]Cecile Belknap Hall
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[1]John Flint Hanner
A.B., Stanford, 1922

[1]Leo Alvil Harris
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[1]Wayne Lee Hawkins
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[3]Aileen Marie Healy
A.B., San Jose State Teachers College, 1927

[1]Sylvester Lyman Hilby
A.B., Washington, 1929

[2]Hung-Chih Hsüeh
Graduate, Peking National Normal University, 1922

[1]Ko-Wong Hung
A.B., Lingnan, 1927

[1]Waldemar John Jaeger
A.B., Fresno State College, 1925

[2]Emma VanNoy Jamison
A.B., Stanford, 1925

[1]Russell Rueben Johnston
A.B., Stanford, 1922
[1]Helen Eleanor Kauffmann
A.B., San Jose State Teachers College, 1927
Dorothy Emilee Kimberlin
A.B., Stanford, 1930
Benjamin Edward Larson
B.S., Linfield, 1922
[1]Arta Frances Lawrence
A.B., Washington, 1925
[1]Edward William Lighton
A.B., New Mexico, 1922
Ming Yueh Liu
A.B., Peking National Normal University, 1926
[1]Neal Joseph Lohman
B.S., Southern California, 1929
[1]Katherine Burrell Loud
A.B., Pomona, 1925
[1]Raymond Hugh McClintic
A.B., San Jose State Teachers College, 1926
Hovey Clyde McDonald
A.B., San Jose State Teachers College, 1928
Duncan McRuer
A.B., Park, 1912, A.M., 1915
John Philip McVey
A.B., Colorado State Teachers College, 1923
Henry Walter Magnuson
B.S., Oregon, 1930
[1]Ray Stoddard Merrill
B.S., Utah Agricultural, 1924
[2]David Russell Metzler
A.B., Stanford, 1919
Frank Myron Miller
A.B., Pennsylvania State, 1927
[2]Bruce Emanuel Millikin
B.S., Columbia, 1910
[2]Eduardo Fausto Montana
B.S., Silliman Institute, 1924
[1]Blanche Anna Naylor
A.B., San Diego State Teachers College, 1924
[1]Mary Bertina Nelson
B.S., Kansas State Teachers College, 1921
[3]Donald Ross Nugent
A.B., Stanford, 1930
Royal Wheeler Park
Graduate, United States Military Academy, 1918
Ruth Anita Patterson
A.B., Stanford, 1930
[1]Margaret Paxton
A.B., Fresno State College, 1923
[1]Edward Horrall Redford
A.B., Washington State, 1927
[2]Marian Elizabeth Reed
A.B., Stanford, 1930
[1]Robert Morrison Reid
LL.B., Michigan, 1911
Lillian Antoinette Reinking
A.B., Wisconsin, 1911
David John Roach
A.B., Stanford, 1930
John Prescott Robins
A.B., Willamette, 1924
[1]Maurice Bursk Ross
B.S., California Institute of Technology, 1924
[1]Walter Charles Schlein
A.B., Stanford, 1926
[3]May Violet Seagoe
Ed.B., California at Los Angeles, 1929
Frederic Thomas Shipp
A.B., Stanford, 1922
Claude Archer Shull
A.B., Emmanuel Missiona y College, 1916
[3]Elizabeth Verna Skelton
A.B., College of the Pacific, 1927
[1]Arthur David Smith
A.B., Fresno State College, 1929
[1]Merrill Jefferson Smith
B.S., Massachusetts Institute of Technology, 1914
[1]Weir Gailey Smith
A.B., Fresno State College, 1928
[1]Lucille Holbrook Snyder
A.B., Stanford, 1925
[1]Henry Richard Spiess
A.B., Willamette, 1921
[1]Hollice Erwin Stevenson
Ed.B., Northern Arizona State Teachers College, 1928
[1]Genevieve Margaret Swain
A.B., San Jose State Teachers College, 1928
[1]Estella Bowen Culp Tener
A.B., Humboldt State Teachers College, 1926
[1]Faith Otha Thomas
A.B., San Jose State Teachers College, 1926
[1]Helen Stanley Thomas
A.B., California, 1924
Lawrence Gregg Thomas
A.B., Stanford, 1930
[1]Clyde Warner Tupper
A.B., Arizona, 1924
[1]Ira Tweedy
B.S., Idaho, 1911
[1]Rebecca Frances Webb
A.B., Arizona, 1926
[1]George McCabe Whitfield
A.B., College of Puget Sound, 1925
[1]Oscar B. Williamson
B.S., Oregon, 1923

### EDUCATION: GRAPHIC ART

[1]Florence Sunshine Williams
A.B., Stanford, 1927

## SCHOOL OF LETTERS

### CLASSICAL LITERATURE

[2]Mary Gene Knudsen
A.B., College of the Sacred Heart, 1928
[2]Maureen Eileen McInerny
A.B., Dominican, 1929
[2]George Roberts Purnell
A.B., Stanford, 1927
[3]Herbert Woodmore Wicher
A.B., Stanford, 1928
Helen Eva Yeomans
A.B., Stanford, 1930

### ENGLISH

[1]Clara Rose Brecher
A.B., Stanford, 1928
Alexander Brede, Jr.
A.B., Michigan, 1918
[1]Anna Howell Burt
A.B., Butler, 1908; A.B., Chicago, 1908
Hazen Clair Carpenter
A.B., Wisconsin, 1929
[1]Helen Casey
A.B., Nebraska, 1927
[1]Anna Leta Edington
B.S., Oregon State Agricultural, 1925
Lee McCarrell Fallaw
A.B. Furman, 1929
[1]Mary Isabel Fry
A.B., California at Los Angeles, 1928
Cora Robbins Halvorson
A.B., Whittier College, 1929
[1]Francis Evelyn McNelly
A.B., Stanford, 1928
Pearl Beattie Mitchell
A.B., California at Los Angeles, 1930
[2]Ernest William Talbert
A.B., San Jose State Teachers College, 1929
Lysle Rushby Trabert
A.B., Nevada, 1915
[1]Mabel VanDuzee
A.B., Wellesley, 1922; A.B., Colorado, 1922

### ENGLISH: PUBLIC SPEAKING

Virgil Antris Anderson
A.B., Willamette, 1923
[1]Violet Lercara Chester
A.B., California, 1923
[1]Virginia Claire MacGregor
A.B., Stanford, 1929

### GERMANIC LANGUAGES

[3]Ainsley Maxwell Carlton
A.B., California, 1930
Raymond Fell Lillie
A.B., Stanford, 1929
Claire Mary Pierce
A.B., Stanford, 1930
[2]Stanley Louis Sharp
A.B., Utah, 1929

### ROMANIC LANGUAGES

[2]Violette Alma Costabel
A.B., College of the Pacific, 1922
Eva Gertrude Doyle
A.B., Pomona, 1926
Mary Alverna Givan
A.B., Stanford, 1930
Vera Theresa Hahn
A.B., Stanford, 1930
Alice Madeleine Lechten
A.B., Stanford, 1923
[1]Edmond Eric Masson
A.B., Stanford, 1929
[3]Sabina Katherine Morosoli
A.B., Mills, 1929
[1]John Turner Reid
A.B., Stanford, 1929
[1]Mary Edna Wittenberg
A.B., Stanford, 1929
[1]Katharine Burchell Woodward
A.B., Vanderbilt, 1919

## SCHOOL OF MEDICINE

### PHARMACOLOGY AND THERAPEUTICS

[3]Morton Alfred Seidenfeld
B.S., Washington, 1927

## SCHOOL OF PHYSICAL SCIENCES

### CHEMISTRY

[1]Fred T. A. Anderson
B.S., Minnesota, 1913
Lauren Keith Bennett
A.B., Willamette, 1928
[1]Glenn Clark Brock
A.B., Simmons, 1929
Dorothy Margaret Brown
A.B., Stanford, 1930
Oscar Edwin Burkhart
A.B., Illinois, 1922; A.M., Colorado State Teachers College, 1928
William Watkins Conner
A.B., Stanford, 1927
Margaret Elizabeth Hines
A.B., Reed, 1929
Deborah Jennings
A.B., Mills, 1928
Fred John Kirkish
A.B., San Jose State Teachers College, 1930
Lawrence Howland Knox
B.S., Bates, 1928
Poe Liang
B.S., Tsing Hua, 1930
[1]Elmer Allen Messner
A.B., Stanford, 1927
[2]James Wilfred Richardson
A.B., San Jose State Teachers College, 1929
Alexander Hunter Roberts
A.B., San Jose State Teachers College, 1930
[1]Anna Evelyn Smith
A.B., Mills, 1929
[3]Gilbert Wheeler Smith
A.B., Stanford, 1930
[2]Edward Eugene Snyder, Jr.
A.B., Stanford, 1930
[2]Monroe Edward Spaght
A.B., Stanford, 1929
[1]William Glenn VanDoren
A.B., Pomona, 1927

### GEOLOGY

[2]Edgar Wayne Galliher
A.B., Stanford, 1929
[3]Loring Bertram Snedden
A.B., Stanford, 1930
Wallace Todd
B.S., New Mexico School of Mines, 1927

### MATHEMATICS

[2]Cleo Garland Adelsbach
A.B., Stanford, 1928
Paul Anthony Benitz
B.S., Notre Dame, 1927
Franklin Alfred Butter, Jr.
A.B., Stanford, 1930
Irval Wayne Carter
A.B., Stanford, 1930
Marjorie Marie Ley
A.B., Stanford, 1930
Harlan Reyburn
A.B., Fresno State College, 1930
[1]Katherine Evelyn Thorpe
A.B., Stanford, 1929

### PHYSICS

[3]Chalon Wesley Carnahan
A.B., Stanford, 1926
[1]Harry Engwicht
A.B., Stanford, 1926

## SCHOOL OF SOCIAL SCIENCES

Edward Goodman
A.B., Redlands, 1929

## SCHOOL OF SOCIAL SCIENCES: SOCIOLOGY

[3]Hobart Nading Young
A.B., California, 1926

## ECONOMICS

Ivan Clayton Barker
A.B., Washburn, 1925
[1]Tsu I Ho
A.B., Stanford, 1929
[1]Edward Stone Shaw
A.B., Stanford, 1929
Harris Rolland Skelton
A.B., Stanford, 1929

## ECONOMICS: SOCIOLOGY

Dorothy Hawkins Embry Cross
A.B., Vassar, 1913
John Joseph Doyle
A.B., Stanford, 1929
[2]Cheng Wang
A.B., Stanford, 1930

## HISTORY

[1]Helen Frances Busyn
A.B., Wisconsin, 1926
José Manuel Espinosa
A.B., Stanford, 1930
[3]Ralph Waldo Everett
A.B., Stanford, 1903
Calvin Charlie Flint
A.B., Stanford, 1928
[2]Tomás Sugitan Fonacier
A.B., California, 1922
[1]Lula May Garrett
A.B., California, 1922
Merle Roscoe Gross
A.B., Stanford, 1930
[1]Marie Herbert Jackson
A.B., Stanford, 1911
Marguerite Moore
A.B., Stanford, 1918
[3]Willard H. Morris
A.B., Michigan State Normal College, 1926
[1]Lulu Mason Nash
A.B., Washington State, 1922
William Isak Olsen
A.B., Stanford, 1928
[1]Earl Ramey
A.B., Stanford, 1925
[2]Dorothy Louise Thompson
A.B., California at Los Angeles, 1928
Dorothea Edith Wyatt
A.B., Stanford, 1930
[2]Mildred Louise Zellhoefer
A.B., Occidental, 1925

## PHILOSOPHY

[2]Elmo Arnold Robinson
B.S., Massachusetts Institute of Technology, 1909

## POLITICAL SCIENCE

Frederick John Berger, Jr.
A.B., Linfield, 1927
Walter Thompson Bogart
A.B., California at Los Angeles, 1930
Don MacKenzie Brown
A.B., Pomona, 1929
Nelson Ira Carter
A.B., Stanford, 1930
[1]Hui-Wen Chang
A.B., Stanford, 1930
Norman Ellsworth Chrisman
A.B., Stanford, 1929
[1]Donald Edwin Cluxton
A.B., Stanford, 1928
Theodore Albert Hill
A.B., California at Los Angeles, 1930
[1]Yichün Ho
A.B., Stanford, 1930
Luther Franklin Moore, Jr.
A.B., Stanford, 1929
[3]Francis Vere Nimmo
A.B., Southern California, 1930
[1]George Louis Perry
A.B., Upper Iowa, 1923
Lucy Elizabeth Ritter
A.B., Stanford, 1930
Joseph William Robinson
A.B., Stanford, 1930
Victoria Schuck
A.B., Stanford, 1930
Edmund Frank Spellacy
A.B., Stanford, 1927
[1]Ada Fay Wyman
A.B., California, 1925

### PSYCHOLOGY

[2]Babette Frances Bailey
A.B., Stanford, 1929
[1]Roger Garlock Barker
A.B., Stanford, 1928
[2]Bonnye Elizabeth Deal
A.B., Stanford, 1928
Angeline Myra Keen
A.B., Colorado College, 1930
Issei Misumi
A.B., McPherson, 1927
[2]Henry Royer Thompson
A.B., California at Los Angeles, 1928
[3]Ruth Elizabeth Tinsley
A.B., Stanford, 1929

## MASTER OF BUSINESS ADMINISTRATION

Elizabeth Wolz Breid
A.B., Grinnell, 1929
William Jennings Durbin
A.B., Tennessee, 1924, A.M., 1925
Lyndon Farwell
A.B., Stanford, 1929
Beverly Clay Gibson
A.B., Stanford, 1929
Orrin Everett Heinke
A.B., Fresno State College, 1929
Franklin White Hemingway
B.S., Princeton, 1926
Frederic Houston-Shaw
B.S., Kentucky, 1921
Frank Isola
A.B., Fresno State College, 1929
Harry Dagdigian Kerrigan
B.S., California, 1928, M.S., 1929
Ping Kei Leung
A.B., Lingnan, 1929
Evelyn Katherine Mayer
A.B., Stanford, 1929
Donald Booth Milliken
B.S., California Institute of Technology, 1929
Joseph Alexander Moore, Jr.
B.S., California, 1929
Walter Andrew Nelson
A.B., Stanford, 1929
Clarence Lincoln Schmid
A.B., Stanford, 1929
Edward Wright Smith
A.B., Stanford, 1929
Donald Judson Stewart
A.B., Redlands, 1927
Max Thomas
B.S., Brigham Young, 1929
Alfred Thomas Tomlinson
A.B., Stanford, 1929
Harrison James Webb
A.B., Stanford, 1929

## ENGINEER

### CIVIL ENGINEERING

Lawrence Gordon Brian
B.S., Ohio Northern, 1928
[3]George Avery Chester
A.B., Stanford, 1930
Jack Lankenau Fingado
A.B., Stanford, 1929
Laura Austin Munson
A.B., Stanford, 1923

### ELECTRICAL ENGINEERING

Cyril Anthony Bairos
A.B., Stanford, 1929
Edmond Henri Bérard
Ingénieur des Mines, École des Mines et de Metallurgie, Mons, 1929
Philip Graham Caldwell
A.B., Stanford, 1929
Gordon Stanley Kimball
A.B., Stanford, 1929
Renato Lombardi
Dottore in Ingegneria civile, Royal School of Engineering of Rome, 1928
William Silva
A.B., Stanford, 1929
[3]William Dale Weidlein
B.S., Kansas, 1917

### MECHANICAL ENGINEERING

Edwin Fry Barry
B.S., Alabama Polytechnic Institute, 1914
Carsten Alonzo Grupe
A.B., College of the Pacific, 1929
Ta Oishi
B.S., California, 1929
Alfred Edward Tennant
A.B., College of the Pacific, 1929
[2]Lawrence Washington
B.S., Massachusetts Institute of Technology, 1922

### MINING ENGINEERING

[3]Alden Buchannon Greninger
A.B., Stanford, 1929
Charles Pray Knaebel
B.S., Yale, 1929
Robert Lincoln Loofbourow
A.B., Stanford, 1929
Daniel Jerome Martin
Graduate, United States Naval Academy, 1924
Henry Lloyd Millar
A.B., Stanford, 1925
Anton Romanofski
A.B., Stanford, 1928

### ENGINEERING CHEMISTRY

Morgan Halvorson
A.B., Whittier, 1929
[1]Theodore Matthew
A.B., California, 1922
Elmer Fred Tesche
A.B., Stanford, 1930

## DOCTOR OF EDUCATION

Richard Benson
B.S., Oregon State Agricultural, 1925; A.M., Washington, 1925
Roscoe David Case
A.B., Denver, 1922, A.M., 1923
[1]Duncan Ellsworth Clark
A.B., Drake, 1913, A.M., 1915
[1]Lu-Dzai Djung
A.B., Shanghai, 1923, A.M., 1927
[1]John Monroe Hackler
Ph.B., Chicago, 1916, A.M., 1921
Theta Harrison
A.B., West Virginia, 1920; A.M., Columbia, 1924
[1]James Orr McLaughlin
A.B., Grove City, 1905, A.M., 1907
[2]Fred Lyman Tibbitts
A.B., Oklahoma, 1916, A.M., 1919

## BACHELOR OF LAWS

[2]Simon David Anixter
A.B., California, 1927
[2]Norman William Applegarth
A.B., Stanford, 1928
Lawrence Wallace Black
A.B., Washburn, 1929
Frank George Brissel
A.B., California at Los Angeles, 1928
[3]Joseph Shinski Brock
A.B., College of St. Thomas, 1926
[2]Francis Bernard Carroll
A.B., Stanford, 1928
[2]Robert Isham Coulter
B.S., California Institute of Technology, 1928
John Shepard Eells, Jr.
A.B., Yale, 1928
[1]Theodore Junior Elias
A.B., Stanford, 1928
[3]Allison Johnson Gibbs
A.B., Stanford, 1928
[2]William Isaac Gilbert, Jr.
A.B., Stanford, 1928
[1]Joseph Rainey Hancock
A.B., Stanford, 1927
Sheldon Pearne Hartwell
A.B., Stanford, 1928
Raymond Brimhall Holbrook
B.S., Brigham Young, 1927

Gaylord Neal Hubler
A.B., Stanford, 1929
Robert Lyon Janda
A.B., Stanford, 1928
William Barksdale Johnston
A.B., Stanford, 1928
Charles Richard Kavanaugh
A.B., Stanford, 1928
[3]Rex Willard Kramer
A.B., Stanford, 1929
Frank Charles Lerrigo
A.B., Stanford, 1928
Leon Herman Levi
A.B., Stanford, 1928
Adolph Haffenberg Levy
A.B., Stanford, 1928
John Townsend Long
A.B., Stanford, 1929
Henry Pitts Mack
A.B., Stanford, 1928
Charles Galen McKnight
A.B., Stanford, 1928
Francis Nathan Marshall
A.B., Stanford, 1928
[3]Arthur Carlton Miller
A.B., Stanford, 1927
Arnold Harvey Nelson
A.B., Stanford, 1925
[1]James Edward Prisinzano
A.B., Stanford, 1928
Robert Weller Scott
A.B., Stanford, 1928
[3]Therice Henry Stahle
B.S., Utah, 1927
William C. Stein
A.B., Stanford, 1928
[3]John Pemberton Thatcher
A.B., Princeton, 1928
[2]Theodore Weisman
A.B., Stanford, 1926
Thomas Strong Wilson
A.B., Princeton, 1927
[2]Carol Glenn Wynn
A.B., Stanford, 1928

## DOCTOR OF MEDICINE

William Lyle Allred
A.B., Brigham Young, 1909; A.M., Stanford, 1925, Ph.D., 1926
Ray Cook Atkinson
A.B., Stanford, 1927
Mary-Catherine Baldwin
A.B., Stanford, 1927
Alexander Bowman Bigler
A.B., Stanford, 1926
Emil Leland Blumenthal
A.B., Stanford, 1927
Robert Greenleaf Bramkamp
A.B., Stanford, 1926
Donald Harmon Brumbaugh
A.B., Redlands, 1926
William Winston Burbank
A.B., Stanford, 1927
Harold DeLos Chope
A.B., Stanford, 1926
Thomas Francis Conroy, Jr.
A.B., Stanford, 1927
Alvin Joseph Cox, Jr.
A.B., Stanford, 1927
Rolland Abbott Crum
A.B., Heidelberg, 1926
William Lawrence Crutchett
A.B., California, 1927
William Edward Delphey
A.B., Southern California, 1926
Collin Henry Dong
A.B., California, 1926
Paul Adrian Exelby
A.B., Stanford, 1927
James Albert Gafford, Jr.
A.B., Whittier, 1926
Henry Gibbons, III
A.B., Stanford, 1927
Avery Morley Hicks
A.B., California, 1924
Cranston William Holman
A.B., Stanford, 1927
Carl Raymond Jackson
A.B., California, 1925
Melville Leonard Jacobs
Martha Abigail James
A.B., College of the Pacific, 1919
Malcolm Nixon Jones
A.B., Stanford, 1927
Raymond Myer Kay
A.B., Stanford, 1927
Philip Wendell Lawler
A.B., Southern California, 1925
John Carson McDermott
A.B., Stanford, 1927
Donald Stuart MacKinnon
A.B., Pomona, 1926
James Bernard McNaught
A.B., Kansas, 1917, A.M., 1917
Robert Chamberlain McNaught
A.B., Stanford, 1927
Henry Wise Newman
A.B., Stanford, 1927
Ernest Vincent Orsborn
A.B., Stanford, 1926
Frances Foster Prescott
A.B., Stanford, 1925

Mary Isabel Preston
A.B., Stanford, 1919, A.M., 1920
Jesse Wilmot Read
A.B., Stanford, 1927
Reginald Shepard Rood
A.B., Stanford, 1927
Ethel Mae Shaull
A.B., Stanford, 1924
William Merrill Silliphant
A.B., Southern California, 1926
Charles Edward Smith
A.B., Stanford, 1927
Edwin Morris Soderstrom
B.S., Chicago, 1927
Arthur Bruce Steele
A.B., Southern California, 1927
Bruce Miller Stephens
A.B., Stanford, 1927
Charles Francis Sweigert
A.B., Stanford, 1927
George William Tippett
A.B., Stanford, 1929
Vera Carolyn Waegele
A.B., Kansas, 1923
Lee Mitsuyoshi Watanabe
A.B., Stanford, 1927
Thomas B. Wiper
A.B., Arizona, 1924
Forrest Young
A.B., Redlands, 1926
Marian Wood Young
A.B., Stanford, 1926

## DOCTOR OF PHILOSOPHY

### SCHOOL OF BIOLOGICAL SCIENCES

[2]Melville Sahyun
A.B., American University, 1916; A.M., Stanford, 1929

#### BOTANY

Ira Judson Condit
B.S., Ohio State, 1905; M.S., California, 1928
Herbert Faulkner Copeland
A.B., Wisconsin, 1922; M.S., California, 1925
Doris Kildale Gillespie
A.B., Stanford, 1926, A.M., 1927
[2]Chien P'ei
A.B., Stanford, 1927, A.M., 1928
[1]Carl Brandt Wolf
A.B., Occidental, 1926; A.M., Stanford, 1927

#### ZOÖLOGY

[2]Willard Joseph Chamberlin
B.S., Oregon State Agricultural, 1915, M.S., 1921
Carl Dudley Duncan
A.B., Stanford, 1923, A.M., 1928
[3]George Armytage Rounsefell
A.B., Stanford, 1926; M.S., Washington, 1929
[2]William Francis Thompson
A.B., Stanford, 1911

### GRADUATE SCHOOL OF BUSINESS

Harrison Val Hoyt
B.S., Purdue, 1913; M.B.A., Harvard, 1917

### SCHOOL OF EDUCATION

#### EDUCATION

Leslie Albert Glinz
A.B., McMaster, 1919; A.M., Columbia, 1923
[2]John Ralph Nichols
B.S., Oregon State Agricultural, 1922; A.M., Stanford, 1925
[1]Spencer Longshore Stoker
A.B., Texas, 1922, A.M., 1923
Feng-Gang Wang
A.B., San Jose State Teachers College, 1927; A.M., Stanford, 1928

## SCHOOL OF ENGINEERING

### ELECTRICAL ENGINEERING

Hugh Hildreth Skilling
A.B., Stanford, 1926, Engineer, 1927; M.S., Massachusetts Institute of Technology, 1930

## SCHOOL OF LETTERS

### ENGLISH

[1]Lawrence Emerson Nelson
A.B., William Jewell, 1915; A.M., Kansas, 1921

## SCHOOL OF PHYSICAL SCIENCES

### CHEMISTRY

Mark Alfred Barmore
A.B., Whittier, 1927; A.M., Stanford, 1929

[3]William Harrison Cook
B.S., Alberta, 1926, M.S., 1928

William Vere Cruess
B.S., California, 1911

[3]Cecil Walter Humphreys
A.B., College of the Pacific, 1927; Engineer, Stanford, 1928

[1]Tsun Hsien Liu
A.B., Ohio State, 1927; M.S., Massachusetts Institute of Technology, 1929

Winifred Lovisa McClatchie
A.B., Stanford, 1929, A.M., 1930

[1]Peter Victor Peterson
A.B., Iowa State Teachers College, 1917; A.M., Stanford, 1921

William A. Riddell
A.B., Manitoba, 1925, B.S., 1926; M.S., Saskatchewan, 1928

Royal Fred Sessions
A.B., Southwestern, 1921; M.S., Vanderbilt, 1922

[1]Dennistoun Wood, Jr.
A.B., Stanford, 1927, A.M., 1928

### PHYSICS

[1]Raymond Sanford Seward
B.S., Pomona, 1912; A.M., California, 1921

## SCHOOL OF SOCIAL SCIENCES

### ECONOMICS

[1]Janet Louise Weston
A.B., Illinois, 1927, A.M., 1928

### ECONOMICS: SOCIOLOGY

James Benjamin Sharp
A.B., California, 1922, A.M., 1926

### HISTORY

Herman Henry Chrisman
A.B., Stanford, 1922, A.M., 1923

[3]Francis Gevrier Guittard
A.B., Chicago, 1901, A.M., 1902

Paul Gerhardt Vigness
A.B., St. Olaf, 1918; A.M., Stanford, 1924

PSYCHOLOGY

William Dollard Commins
A.B., St. Joseph's, 1921; A.M., Catholic University of America, 1922

[1]Harry Frederick Harlow
A.B., Stanford, 1927

[1]Everett Lowell Kelly
B.S., Purdue, 1926; A.M., Colorado State Teachers College, 1928

[1]Floyd Leon Ruch
B.S., Oregon, 1925; A.M., Iowa, 1926

[3]David Segel
A.B., California, 1917; A.M., Columbia, 1922

[1]Homer Ellsworth Weaver
A.B., Oberlin, 1924, A.M., 1926

## SUMMARY OF DEGREES CONFERRED, 1930–31

| | October | January | April | June | Total |
|---|---|---|---|---|---|
| Bachelor of Arts | 88 | 74 | 101 | 544 | 807 |
| Master of Arts | 88 | 30 | 20 | 82 | 220 |
| Master of Business Administration | .. | .. | .. | 20 | 20 |
| Engineer | 2 | .. | 3 | 20 | 25 |
| Doctor of Education | 4 | 1 | .. | 3 | 8 |
| Bachelor of Laws | 3 | 7 | 6 | 20 | 36 |
| Doctor of Medicine | .. | .. | .. | 49 | 49 |
| Doctor of Philosophy | 12 | 5 | 5 | 17 | 39 |
| Total | 197 | 117 | 135 | 755 | 1,204 |

# FELLOWS AND SCHOLARS

([1]Autumn quarter only; [2]winter quarter; [3]spring quarter; [4]summer quarter; [5]all four quarters.)

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## 1930–31

### FELLOWS

#### AMERICAN-GERMAN STUDENT EXCHANGE FELLOW

Christian Carstensen (Mathematics) ..... Achtrup, Germany
A.B., Stanford, 1931

#### AMERICAN PETROLEUM INSTITUTE RESEARCH FELLOW

Hugh Martin Huffman (Chemistry) ..... Palo Alto
A.B., Stanford, 1925, A.M., 1926, Ph.D., 1928

#### BUCKEL FELLOW IN EDUCATION AND PSYCHOLOGY

Robert Chester Challman (Psychology) ..... Minneapolis, Minnesota
A.B., Minnesota, 1927, A.M., 1929

#### TEACHING FELLOWS IN CHEMISTRY

[12]John Lemoyne Porter ..... Alma, Nebraska
B.S., Princeton, 1926

Eric Edward Todd ..... Vancouver, B.C.
A.B., British Columbia, 1929, A.M., 1930

Otto Olive Watts ..... Abilene, Texas
A.B., Simmons, 1913; A.B., Rice Institute, 1916; A.M., Colorado, 1923

#### CHARLES A. COFFIN FOUNDATION FELLOW

Edmund Ashton Evans (Electrical Engineering) ..... Margaretville, N.Y.
E.E., Rensselaer Polytechnic, 1926

#### COMMONWEALTH FUND FELLOWS

Edmond Henri Bérard (Electrical Engineering) ..... Mons, Belgium
Mining Engineer, École des Mines et de Metallurgie (Mons), 1929;
Engineer, Stanford, 1931

Ruth Louisa Cohen (Food Research) ..... Berkhamsted, England
Graduate, Newnham College, 1929

Alexander Kirkpatrick Nuttall (Electrical Engineering) Middlesex, England
A.B., Trinity, 1928

#### CUBBERLEY FELLOW IN SCHOOL ADMINISTRATION

Oscar Albin Anderson ..... Palo Alto
A.B., Cornell College, 1921; A.M., Stanford, 1929

#### EDWARD CURTIS FRANKLIN FELLOW

Ernest Joy Baldwin (Chemistry) ..... Pocatello, Idaho
B.S., Kansas, 1915, M.S., 1917

TEACHING FELLOW IN MINERALOGY

Joseph Désiré Hubert Donnay.....Menlo Park
Candidat Ingénieur, Liége, 1922, Ingénieur civil des Mines, 1925; Ph.D., Stanford, 1929

DU PONT DE NEMOURS AND COMPANY FELLOW

Francis Edward Blacet (Chemistry).....Palo Alto
A.B., Pomona, 1922, A.M., 1925

JAMES D. HAILE MEMORIAL FELLOW

John Leighton Dales, Jr. (Law).....Los Angeles
A.B., Stanford, 1929

HIGH-VOLTAGE LABORATORY RESEARCH FELLOW

Victor Siegfried (Electrical Engineering).....Palo Alto
A.B., Stanford, 1930

ITALY-AMERICA VOLTA FELLOW

Renato Lombardi (Electrical Engineering).....Rome, Italy
Dr. Civ. Engr., Royal School of Engineering of Rome, 1928; Engineer, Stanford, 1931

DONALD PORTER JACOBS FELLOW

Delzie Demaree (Botany).....Benham, Indiana
A.B., Indiana, 1914; S.M., Chicago, 1921

ERIC KNIGHT JORDAN RESEARCH FELLOW

[23]Harry Eugene Wheeler (Geology).....Eugene, Oregon
B.S., Oregon, 1930

GEORGE LOOMIS FELLOW IN AMERICAN LITERATURE

Nanette Margretta Ashby.....Tucson, Arizona
A.B., Grinnell, 1920; A.M., Arizona, 1927

McCALLUM RESEARCH FELLOW

[12]William Jackson McCallum (Chemistry).....Salinas
A.B., Stanford, 1930

NATIONAL RESEARCH COUNCIL FELLOWS

Cecil Calvert Craig (Mathematics).....Palo Alto
A.B., Indiana, 1920, A.M., 1922; Ph.D., Michigan, 1927

Paul E. Fields (Psychology).....Palo Alto
A.B., Ohio Wesleyan, 1926, A.M., 1927; Ph.D., Ohio State, 1930

[3]Derrick Henry Lehmer (Mathematics).....Stanford University
A.B., California, 1927; A.M., Brown, 1929, Ph.D., 1930

PHI DELTA KAPPA FELLOW

Wyatt Walker Hale (Education).....Birmingham, Alabama
B.S., Birmingham-Southern, 1923, A.M., 1926

### SHELL RESEARCH FELLOW

[12]Samuel Benson Thomas (Chemistry).....Mill Valley
A.B., Stanford, 1927, Engineer, 1928

### SOCIAL SCIENCE RESEARCH COUNCIL FELLOW

Harold D. Carter (Psychology).....Stanford University
A.B., Minnesota, 1926, A.M., 1927, Ph.D., 1930

### THOMAS WELTON STANFORD FELLOW IN PSYCHIC RESEARCH

John Edgar Coover.....Stanford University
A.B., Stanford, 1904, A.M., 1905, Ph.D., 1912

### RUTH STERN FELLOW FOR STUDY OF DISEASES OF NERVOUS SYSTEM

Helen Hopkins Detrick.....Newark, N.Y.
A.B., California, 1920, A.M., 1921; M.D., Johns Hopkins, 1925

### ROYALL VICTOR FELLOWS

Frederick Malcolm Combellack (Classical Literature).....San Francisco
A.B., Stanford, 1928

Elmer William Ellsworth (Geology).....Madison, Wisconsin
A.B., Wisconsin, 1929

[12]Denis Llewellyn Fox (School of Biological Sciences).....Berkeley
A.B., California, 1925

David Lyman Greene (Education).....Upper Montclair, N.J.
A.B., Amherst, 1922; Ed.M., Harvard, 1926

[1]Cecil Walter Humphreys (Chemistry).....Stockton
A.B., College of the Pacific, 1927; Engineer, Stanford, 1928, Ph.D., 1931

[12]Charles Pray Knaebel (Mining Engineering).....Washington, D.C.
B.S., Yale, 1929; Engineer, Stanford, 1931

Winifred Lovisa McClatchie (Chemistry).....Palo Alto
A.B., Stanford, 1929, A.M., 1930, Ph.D., 1931

John Ohleyer Mosely (Classical Literature).....Norman, Oklahoma
A.B., Oxford, 1922, A.M., 1928

Ruth Elizabeth Tinsley (Psychology).....Kansas City, Missouri
A.B., Stanford, 1929, A.M., 1931

### UNIVERSITY FELLOWS

William Dollard Commins (Psychology).....St. Louis, Missouri
A.B., St. Joseph's, 1921; A.M., Catholic University of America, 1922; Ph.D., Stanford, 1931

Edgar Wayne Galliher (Geology).....San Jose
A.B., Stanford, 1929, A.M., 1931

Helen Marilla Gibbs (English).....Sioux Falls, S.D.
A.B., Sioux Falls, 1927

[12]Lake S. Gill (Botany).....Palo Alto
A.B., Stanford, 1923

Veon Carter Kiech (Physiology).....Albuquerque, N.M.
A.B., New Mexico, 1924; A.M., Stanford, 1928

Richard Andrew Ogg, Jr. (Chemistry).....Palo Alto
A.B., Stanford, 1929, A.M., 1930

Kate Pinsdorf (History).....Matto Grosso, Brazil
A.B., Smith, 1928; A.M., Stanford, 1929

David Gerrard Rempel (History).....Palo Alto
A.B., Bluffton, 1927; A.M., Wisconsin, 1928

William A. Riddell (Chemistry) ..... Vancouver, B.C.
A.B., Manitoba, 1925, B.S., 1926; M.S., Saskatchewan, 1928; Ph.D., Stanford, 1931
[124]Charles Alexander Sisson (English) ..... Lawrence, Kansas
A.B., Kansas, 1923
Hugh Hildreth Skilling (Electrical Engineering) ..... San Diego
A.B., Stanford, 1926, Engineer, 1927, Ph.D., 1931;
M.S., Massachusetts Institute of Technology, 1930
Virgil Keeble Whitaker, Jr. (English) ..... Spokane, Washington
A.B., Stanford, 1929, A.M., 1930

## SCHOLARS

### ALUMNI SCHOLARS

[12]Paul Clarence Aebersold (Physics) ..... Oakland
[1]Stanley Anderson (Lower Division) ..... Kingsburg
[12]Manuel Arthur Azevedo (Lower Division) ..... Pittsburg
[1]Harris Dixon Bogue (History) ..... Burlingame
A.B., Stanford, 1931
Pascal Jack Goodrich (Lower Division) ..... Los Angeles
[12]Gordon Raymond Graves (Lower Division) ..... San Jose
[1]Franklin Porter Gribbin (Pre-Medical) ..... Taft
[1]Jack Holwerda (Lower Division) ..... Muskegon, Michigan
[12]Walter E. Kite (Lower Division) ..... Palo Alto
[12]Henri John Laborde (Lower Division) ..... San Francisco
[4]Emile Albert La Combe (Lower Division) ..... Palo Alto
Frank Palmer Lombardi (Lower Division) ..... Culver City
John Carnahan Lyman (Lower Division) ..... Santa Monica
[12]Robert Caldwell Maentz (Lower Division) ..... Allegan, Michigan
[1]Hugh Brazel Miller (Lower Division) ..... San Francisco
[1]Carlos A. Monsalve (Lower Division) ..... Los Angeles
[12]Rudolph Alexander Rintala (Economics-Accountancy) ..... San Francisco
Allan Wenzel Storms (Economics) ..... Los Angeles
William Keith Topping (Lower Division) ..... Pasadena
[1]James David Willson (Lower Division) ..... Pearl Harbor, T.H.
[1]Paul Edward Zaches (Political Science) ..... Monterey

### ALUMNI JORDAN SCHOLARS

Fred Adam Clark, Jr. (Medicine) ..... Redlands
A.B., Redlands, 1928
Charles Wendell Leach (Medicine) ..... Los Angeles
A.B., Southern California, 1927
August Reich (Medicine) ..... San Francisco
A.B., Stanford, 1928
David Gordon Schmidt (Medicine) ..... Fresno
A.B., Stanford, 1928

### ANGLO-CALIFORNIA TRUST COMPANY SCHOLAR

John Higby Peck (Economics) ..... San Francisco

### ANONYMOUS SCHOLARS (STANFORD)

Robert Minge Brown (History) ..... San Francisco
A.B., Stanford, 1931
[2]Gladys Louise Crofoot (English-Public Speaking) ..... Oakland

### BENEVOLENT AND PROTECTIVE ORDER OF ELKS SCHOLAR

Henry Purinton Grace (Economics) ..... San Francisco

### BERTHA HYDE BRALY SCHOLARS

[1]Mate Gunsolus (English) ..... Palo Alto
A.B., Stanford, 1931

Josephine Olga Lane (Education-Graphic Art) ..... Palo Alto
A.B., Stanford, 1931

### CAP AND GOWN SCHOLAR

Olga Williamson (Psychology) ..... Flint, Michigan

### CIVIL ENGINEERING SCHOLAR

Niel Fairhurst Meadowcroft (Civil Engineering) .... Stanford University
A.B., Stanford, 1930

### E. C. CONVERSE SCHOLARS

Olaf Knute Amdahl (Lower Division) ..... Spokane, Washington
[23]Ellis Hardin Ray Blade (School of Engineering) ..... Belvedere
[1]Nora Anna Blichfeldt (Political Science) ..... Oakland
A.B., Stanford, 1931

Edward Ramsey Bunting (Lower Division) ..... Piedmont
John Richard Bunting (Lower Division) ..... Red Bluff
Gilbert Lawrence Carr (History) ..... Santa Monica
A.B., Stanford, 1931

John Frederic Gange (Political Science) ..... Palo Alto
Genevieve Goddard (Lower Division) ..... Carmel
Francis Kennedy Hamilton (Lower Division) ..... Redding
[1]Thelma Rachael Hogevoll (Lower Division) ..... San Francisco
Sturgis McKinney Riddle (Classical Literature) ..... Long Beach
A.B., Stanford, 1931

[12]John Stockman Tarr (Economics-Accountancy) .... Tacoma, Washington
[23]Harold Vernon Thompson (History) ..... Fresno
[1]Benton Eugene Warner, Jr. (Lower Division) ..... Mineola, N.Y.
[23]Ernest Amos Wells (Mathematics) ..... Pasadena
A.B., Stanford, 1931

### MABEL HYDE CORY SCHOLARS

[34]Elizabeth Irene McCullough (History) ..... Pasadena
[12]Dorothea Edith Wyatt (History) ..... San Francisco
A.B., Stanford, 1930, A.M., 1931

### WILLIAM S. CRANSTON MEMORIAL SCHOLAR

Ward Wilson Woods (Psychology) ..... Oakland

### GEORGE E. CROTHERS LAW SCHOLAR

George Edward Lindelof, Jr. ..... Hawthorne
A.B., California at Los Angeles, 1929

### W. J. DICKEY SCHOLARS

Manson Fielding McCormick (School of Social Sciences).....Fresno
A.B., Stanford, 1931
Stanley Johnson Madden (School of Engineering).....Fresno

### HENRY G. DODDS SCHOLAR

Theodore Mitchell DeMotte (School of Social Sciences-Journalism).Ukiah
A.B., Stanford, 1931

### ORRIN W. DUNN SCHOLARS

[23]William Thomas Corum (School of Engineering).....Napa
[1]Ernest Amos Wells (Mathematics).....Pasadena
A.B., Stanford, 1931

### WALTER MASON FIELD SCHOLAR

Arthur Presley Lites (School of Social Sciences-Journalism)....Palo Alto

### HIRAM C. FISK SCHOLAR

James Askew Kelley (School of Engineering).....Tulsa, Oklahoma

### FLORENCE HECHT FRIES SCHOLAR

Phillip Hunt Wells (Medicine).....Pasadena
A.B., Stanford, 1929

### GERTRUDE GARDINER SCHOLAR

Margaret Elizabeth O'Connor (Political Science).....Long Beach

### WILLIAM F. HERRIN SCHOLARS

[2]Samuel Lockwood Bradshaw (Lower Division).....Los Angeles
[13]Howard Francis Spalding (Economics-Accountancy)...Medford, Oregon
A.B., Stanford, 1931

### BRODIE G. HIGLEY SCHOLAR

Orrin William Bisbee (School of Social Sciences).....Heppner, Oregon

### E. W. HOPKINS SCHOLARS

[31]Kenneth Philip Bechtel (Lower Division).....Holtville
[2]Alan Harnden Belmont (Economics-Accountancy).....Santa Cruz
A.B., Stanford, 1931
Edward Doleman (Chemistry).....Modesto
[23]Justin Redman Dorgeloh (Lower Division).....San Francisco
[1]Herbert William Jenkins (Lower Division).....Palo Alto
[2]Robert Chung Hau Lee (School of Physical Sciences)....Honolulu, T.H.
[23]Nonabel Metzger (Lower Division).....Fresno
[1]Helen Dolly Schwarzkopf (Lower Division).....Arcadia
[2]James Melville Vizzard (Political Science).....Bakersfield
Wallace Kelly Woods (Lower Division).....Kansas City, Missouri

CHARLES ANDREWS HUSTON MEMORIAL SCHOLAR

Robert Arthur Hume (Law) ..... Brookings, S.D.
A.B., Stanford, 1929

KEENAN SCHOLAR

[3]Edward W. Wilson (Pre-Clinical) ..... Stanford University

IRA S. LILLICK SCHOLAR

John Paul Jennings (Law) ..... Portland, Oregon
A.B., Stanford, 1929

ERNEST A. LOVE SCHOLAR

[12]Howard Dean Beeman (School of Engineering) ..... Woodland

McBRYDE SCHOLAR

[1]Paul Lanz Speegle (Law) ..... Palo Alto
A.B., Stanford, 1930

MRS. McDOWELL ROBLE CLUB SCHOLAR

[1]Mary Comings Hables (School of Engineering) ..... Menlo Park

JOHN E. MARBLE SCHOLAR

[1]David S. Jacobson (History) ..... Brawley
A.B., Stanford, 1930

DOROTHY METZ SCHOLAR

Henry Colwell Ramsey (English) ..... Palo Alto

MONTEREY COUNTY STANFORD CLUB SCHOLAR

Jane Lawler (Lower Division) ..... Carmel

ROBERT S. AND FLORENCE MOORE SCHOLARS

[4]Ellis Hardin Ray Blade (School of Engineering) ..... Belvedere
[12]Kenneth Leroy Bowen (School of Social Sciences-Journalism)
Stanford University
A.B., Stanford, 1931

MAUD HUNTSBERGER PECK SCHOLAR

Karl Leonard Falk (German) ..... Piedmont

FRANCIS PRICE SCHOLARS

[1]Francis Bernard Carroll (Law) ..... San Jose
A.B., Stanford, 1928, LL.B., 1931
[23]John Bingham Hurlbut (Law) ..... Omro, Wisconsin
A.B., California at Los Angeles, 1928; A.M., Stanford, 1929

### SAN FRANCISCO POLYTECHNIC HIGH SCHOOL SCHOLARS

Fredrick Taylor Addicott (Lower Division) ..... San Francisco
[1]Harry Nathaniel M. Winton (History) ..... San Francisco

### MARGARET SIDNEY SCHOLAR

Frances Jean Johnson (Lower Division) ..... Palo Alto

### LEON SLOSS SCHOLAR

Allan Hugh McCurdy (History) ..... Eureka
A.B., Stanford, 1931

### LELAND STANFORD JUNIOR MEMORIAL SCHOLAR

Arthur Kroeger (School of Social Sciences) ..... Fullerton
A.B., Stanford, 1931

### STANFORD MOTHERS' CLUB SCHOLARS

[1]Marion Virginia Applegate (School of Social Sciences) .. Miami, Oklahoma
A.B., Stanford, 1931
[2]Jacinth Colvin (School of Biological Sciences) ..... Binford, N.D.
[1]Justin Redman Dorgeloh (Lower Division) ..... San Francisco
[2]Ethel May Edwards (Psychology) ..... Bakersfield
A.B., Stanford, 1931
[12]Wallace Edward Grebe (Chemistry) ..... Costa Mesa
A.B., Stanford, 1931
[2]Johan Christian de Haas (Electrical Engineering) ..... Holland
E.E., Dordrecht Technische School, 1925
[1]Tokio Ishikawa (Pre-Clinical) ..... San Jose
A.B., Stanford, 1931
[2]Sidney Clarence Madden (Medicine) ..... San Francisco
A.B., Stanford, 1930
[2]Gertrude Pope Millard (Lower Division) ..... San Jose
[1]Frank Otis Moneyhun (Lower Division) ..... Palo Alto
[2]Morris Francis Pool (Chemistry) ..... Gridley
A.B., Stanford, 1931
[1]Edward W. Wilson (Pre-Clinical) ..... Stanford University
[2]Dolph Winebrenner (School of Social Sciences) ..... Long Beach

### STANFORD RESIDENT ALUMNAE SCHOLAR

Jean Lilian Marquis (Psychology) ..... Bellingham, Washington
A.B., Stanford, 1931

### STANFORD WOMEN'S CLUB OF SAN FRANCISCO SCHOLAR

Evelyn Frances Durel (Lower Division) ..... St. Louis, Missouri

### JOHN MAXSON STILLMAN SCHOLAR

Edward Eugene Snyder, Jr. (Chemistry) ..... Palo Alto
A.B., Stanford, 1930, A.M., 1931

### PALMER WILKINSON TAYLOR SCHOLAR

[2]Phil Stanley Winnek (Chemistry) ..... San Diego
A.B., Stanford, 1931

### THETA SIGMA PHI SCHOLAR

[1]Margaret Aileen Main (Economics) ..... San Diego
A.B., Stanford, 1931

### BEACH THOMPSON MEMORIAL SCHOLAR

[3]Barbara Lee Boggs (Political Science) ..... Kelseyville

### HARRY A. TRUE MEMORIAL SCHOLARS

[3]Samuel Lockwood Bradshaw (Lower Division) ..... Los Angeles
[12]Jack Leroy Wilson (Economics-Accountancy) ..... Santa Monica
A.B., Stanford, 1931

### UNIVERSITY GRADUATE SCHOLARS

Mark Knight Allen (Psychology) ..... Provo, Utah
A.B., Brigham Young, 1926
[2]Darrell A. Amyx (Classical Literature) ..... San Jose
A.B., Stanford, 1930
Carroll Baugh Andrews (Medicine) ..... San Francisco
A.B., Stanford, 1928
[1]Norman William Applegarth (Law) ..... Palo Alto
A.B., Stanford, 1928, LL.B., 1931
Cyril John Attwood (Medicine) ..... Centerville
A.B., Stanford, 1927
[23]Margaret Ball (Political Science) ..... Santa Monica
A.B., Stanford, 1931
William Carter Black (Medicine) ..... Hollywood
A.B., Stanford, 1929
Ogden Welborn Bodenheimer (Mechanical Engineering) ..... Oakland
B.S., Colorado, 1930
Walter Thompson Bogart (Political Science) ..... Los Angeles
A.B., California at Los Angeles, 1930; A.M., Stanford, 1931
Dorothy Margaret Brown (Chemistry) ..... Palo Alto
A.B., Stanford, 1930, A.M., 1931
Kenneth Morrison Brown (Mechanical Engineering) ..... Santa Clara
A.B., Stanford, 1930
Philip Graham Caldwell (Electrical Engineering) ..... Piedmont
A.B., Stanford, 1929, Engineer, 1931
[23]George Holt Card (Mining) ..... Denver, Colorado
A.B., Stanford, 1924
Hazen Clair Carpenter (English) ..... Palo Alto
A.B., Wisconsin, 1929; A.M., Stanford, 1931
Richard Deidrich Cutter (Medicine) ..... Palo Alto
A.B., Stanford, 1930
[5]Albert Clare Daniels (Medicine) ..... San Francisco
A.B., Stanford, 1929
[3]Delzie Demaree (Botany) ..... Benham, Indiana
A.B., Indiana, 1914; S.M., Chicago, 1921
[4]Ethel May Edwards (Psychology) ..... Bakersfield
A.B., Stanford, 1931
[12]Lee McCarrell Fallaw (English) ..... Greenville, S.C.
A.B., Furman, 1929; A.M., Stanford, 1931
George Comte Feliz (Law) ..... Santa Rosa
A.B., Stanford, 1930
[23]Rubin Leonard Gold (Law) ..... San Francisco
B.S., New York, 1929

[3]Eleanor Anne Griffin (Education) ..... Fresno
A.B., Stanford, 1930
Milton Morris Hartman (Medicine) ..... San Francisco
A.B., Stanford, 1929
Lot Duncan Howard, Jr. (Medicine) ..... San Jose
A.B., Stanford, 1929
[23]Joseph Jay Jones (English) ..... Tecumseh, Nebraska
B.S., Nebraska, 1930
Angeline Myra Keen (Psychology) ..... Colorado Springs, Colorado
A.B., Colorado College, 1930; A.M., Stanford, 1931
[3]Roy Clinton Langford (Psychology) ..... Manhattan, Kansas
B.S., Kansas State Agricultural, 1925, M.S., 1926
[12]Christian Lagoni Larsen (Law) ..... Rochester, Washington
A.B., Nebraska, 1930
[3]Philip vonLubken (Mathematics) ..... Stanford University
A.B., Whitman, 1927
Sidney Clarence Madden (Medicine) ..... San Francisco
A.B., Stanford, 1930
Camille Mermod (Medicine) ..... Winters
A.B., Mills, 1922
Paul Maximovich Narbutovskih (Electrical Engineering) .. San Francisco
A.B., Stanford, 1929
[1]Ruth H. Parrish (Education) ..... Great Barrington, Mass.
B.S., Massachusetts Agricultural, 1929; A.M., Stanford, 1930
Ruth Anita Patterson (Education) ..... Fresno
A.B., Stanford, 1930, A.M., 1931
Maurice Strathallan Power (History) ..... San Francisco
A.B., Stanford, 1930
[23]Lucy Elizabeth Ritter (Political Science) ..... Stockton
A.B., Stanford, 1930, A.M., 1931
[1]Nanelia Siegfried (English) ..... Palo Alto
A.B., Stanford, 1930
Charles Nelson Spinks (History) ..... Los Altos
A.B., Stanford, 1929, A.M., 1930
[12]Edward Arthur Tappan (Medicine) ..... Palo Alto
B.S., Illinois, 1924
Harold Chester Torbert (Medicine) ..... San Francisco
A.B., Stanford, 1929
William Robert Triplett (Electrical Engineering) ..... Sacramento
A.B., Stanford, 1930
Norman Omar Waldorf (English) ..... San Jose
A.B., Stanford, 1930
Oscar Osburn Winther (History) ..... Stanford University
A.B., Oregon, 1925; A.M., Harvard, 1928

## HENRY WINDT JUNIOR MEMORIAL SCHOLARS

[3]John Lemoyne Porter (Chemistry) ..... Alma, Nebraska
B.S., Princeton, 1926
[12]Royal Fred Sessions (Chemistry) ..... San Antonio, Texas
A.B., Southwestern, 1921; M.S., Vanderbilt, 1922; Ph.D., Stanford, 1931

## AWARDS AND PRIZES

COLONIAL DAMES SCHOLARSHIP

Anna Markus (Lower Division) ..... Santa Barbara

WILLIAM ROBERTS ECKART PRIZE IN MECHANICAL ENGINEERING

Lawrence Washington ..... Palo Alto
B.S., Massachusetts Institute of Technology, 1922; Engineer, Stanford, 1931

J. GIMBEL MENTAL ATTITUDE PRIZE

Robert Minge Brown (History) ..... San Francisco
A.B., Stanford, 1931

IRENE HARDY POETRY PRIZE

Smith Dawless (Lower Division) ..... Pasadena

CLARENCE URMY AWARD FOR LYRIC POETRY

Robert Arthur Hume (Law) ..... Brookings, S.D.
A.B., Stanford, 1929

## LOWER DIVISION HONORS

(Awarded on the basis of high scholastic attainment to approximately one-tenth of the students completing Lower Division requirements at the end of the summer, autumn, winter, and spring quarters.)

Frederick Homer Bailey
Wayne Allabach Bannister
Richard Collier Beckett
Leonard James Bloom
Joseph Blumlein
Edna Vivienne Bonn
Eleanor Sprott Boyd
Erwin Carl Brekelbaum
Alice Brett
Edward Ramsey Bunting
Samuel Tracy Clarke
Grosvenor William Cooper
Francis Robert Crable
Justin Redman Dorgeloh
Michael Boris Doudoroff
Leslie Hillel Farber
John Bodley Ferguson
Anthony John Franich
Genevieve Goddard
Fred George Hines
Yuji Imai
John Durnford Jernegan
Peter Clyde Jurs
Mark Kai-Kee
Marialice Patricia King
Joseph Burke Knapp
Mary Elisabeth Lawton
Mary Elizabeth Lewton
Robert Weiler Lippman
Maclyn McCarty
Janis McCreadie
Rhoda Manning
William Jesse Newman
Donald DeWitt Parker
Hugh John Peat
Leonard Trainer Pockman
Henry Leopold Reich
Arthur Pawley Richardson
Mary Carroll Rochefort
Joseph Foster Ross
Lyle Boyd Rowe
Calhoun Shorts
Rafael von Heim Silver
Madeleine Lawton Speik
Arnold Byron Steiner
Roberta Marie Tempest
Helen Loretta Thomas
Newell Thompson Vandermast
Albert Travers Voris
Robert Crowell Weaver
Otto Allen Will
Eleanor Dearman Williams
Marian Yale Williams

# STUDENTS

Name; home residence; major subject; status; University residence; postoffice. The *capital* letter following residence address indicates location of street (P = Palo Alto, MP = Menlo Park, RC = Redwood City, SJ = San Jose, SF = San Francisco, etc.); where capital letter is omitted the residence in all cases is *Stanford University*. The *small* letter following the capital indicates the postoffice address (p = Palo Alto; (Sta. A) p = Station A, Palo Alto); where small letter is omitted the postoffice in all cases is *Stanford University*. The numbers (or letters) in italics after the University address are Stanford University postoffice box numbers (or box letters).

Status—gr., graduate student; sp., special student. The figures after major subjects indicate, first, the number of units of university work completed (and counting toward the 180 units required for graduation), no account being taken of "deferred," "incomplete," or "conditioned" work; second, the number of grade points in excess of, or falling short of, the number of registered units ("+20," in excess; "−20," deficient). Where two numbers (separated by a point) precede the plus or minus sign, the first indicates the number of units of advanced or other credit to which the grade-point system does not apply; thus 45·50+10 means that the total credit is 95 units, but that the +10 grade points are based upon the 50 units only.

The superior figure [1] indicates registration for the autumn quarter only; [2] indicates winter quarter only; [3] indicates spring quarter only; [4] indicates summer quarter only; [12] indicates autumn and winter quarters only; [23] indicates winter and spring quarters only; [13] indicates autumn and spring quarters only; [5] indicates autumn, winter, spring, and summer quarters. The double dagger (‡) indicates unadjusted standing from other colleges and universities. (Phys. = Physics; Phyl. = Physiology.)

[23]Aaron, Lewis Leopold . San Francisco LD 30+37 203 Encina-*1984*

Aaron, Robert H. San Francisco S.Engr. 10·141+77 206 Brnr-*1984*

Abbott, Francese Vanelia Compton Econ. 57·131+166 200 Roble-*2334*
A.B., Stanford, 1931

Abbott, Mary Elizabeth Oak Park, Ill. Pol.S. 95·86+99 KappaKappaGam.
A.B., Stanford, 1931

[4]Abbott, Pansy Jewett San Mateo Educ. gr. Redwood City-Bx216,rc
A.B., San Jose State Teachers College, 1931

[4]Abele, Ruth Frances Coalinga Educ. gr. Roble
A.B., Oregon, 1929

[23]Abers, Jacob Los Angeles Engl. gr. 251 Hawthorne, P-p
A.B., California at Los Angeles, 1927; A.M., Stanford, 1930

[4]Abrahamson, Alfred Christian Eureka LD 135 Toyon

[4]Abrams, Dorothy Elise San Francisco Educ. gr. 377 Roble
A.B., Stanford, 1929

[23]Abrams, Irwin Martin San Francisco LD 29+41 203 Encina-*939*

Abrams, Margaret Stanford Univ. Pol.S. 134+81 217 Roble

[4]Acheson, Joseph H. Burlingame Educ. gr. 127 Clarendon, B-b
A.B., Stanford, 1925

Ackerman, Walter Douglas Kona, T.H. LD 45+34 115 Encina-*1187*

[5]Adams, Ann Louise Santa Cruz Econ.-Ac.115+142 DeltaGam-*1366*

Adams, Arthur R. Los Angeles Econ. 103·77+53 326 Union
A.B., Stanford, 1931

[4]Adams, Bertha Dillow Santa Cruz Cl.Lit. gr. 1832 Cowper,P-*1366*
A.B., Western Reserve, 1900

[12]Adams,Bradford Clarendon Los Angeles Geol. gr. 528 Encina
A.B., Southern California, 1928

Adams, Clement Earl Palo Alto Econ.-Soc. gr. 853 Channing, P-p
A.B., San Jose State Teachers College, 1926

Adams, Francis S. Anaconda, Mont. Pre-Med. 7·142+73 245 Brnr-*722*

Adams, Frank Pollard Piedmont Econ.181+84 DeltaTauDelta-*1363*
A.B., Stanford, 1931

Adams, George Mellen Berwyn, Ill. LD 100–2 113 Branner-*1131*

[12]Adams, Henry Jackson La Mesa Econ. 180+22 235 Embarcadero, P
A.B., Stanford, 1931

Adams, Jean Oakland LD 49+83 325 Roble-*1843*

Adams, J. Martin Klamath Falls, Ore. Med. gr. 2201 California, SF-sf
A.B., Stanford, 1926
Adams, John B. La Mesa Econ. 138+37 Zeta Psi-*B*
Adams, Paul Livermore Dubuque, Iowa LD 38–12 344 Encina-*2166*
[4]Adams, Russel Monroe Forest Gve.,Ore. Educ. gr. 213 Union
B.S., Washington State, 1918; M.S., Oregon Agricultural, 1930
Addicott, Fredrick Taylor San Francisco LD 44+49 206 Encina-*822*
Addicott, Kenneth Klein San Francisco LD 39–1 206 Encina-*822*
Addlestone, Howard Fred San Francisco Engl.-P.Sp. 79·102+17 527 Encina
A.B., Stanford, 1931
Adelsbach, Cleo Garland Visalia Math gr. 721 Columbia, P-*62*
A.B., Stanford, 1928, A.M., 1931
Aebersold, Paul Clarence Long Beach Phys. 87·48+73 512 Governor's
[13]Afflerbaugh, Jack Kenneth Pomona LD 73+9 Zeta Psi-*B*
[4]Aitken, Malcolm Darroch Mt. View Educ. gr. 1070 California, MV-mv
B.S., Montana State, 1922
Aitken, Thomas Dickey, Jr. San Francisco Soc.S.-Jn. 141+211 136 Branner
[4]Akey, Donald Kenneth Gilroy Math. gr. 1121 Greenwood, P-p
A.B., Stanford, 1926
[124]Akey, R. Ellsworth Pendleton, Ore. LD 60–18 114 Toyon-*914*
[5]Albertson, H. Kendall Los Angeles Pre-Med. 166+10 Carmel-c
[12]Albertson, Marcellus O. Los Angeles Chem. 113+7 Zeta Psi-*B*
[2]Albright, Preston B. Colo. Sprgs., Colo. Hist. gr. 141 Toyon-*2757*
A.B., Colorado College, 1928
[4]Albright, Robert Edwin Dillon, Mont. Hist. gr. Kingscote
A.B., Nebraska Wesleyan, 1918; A.M., Colorado, 1925
Alden, Elizabeth Palo Alto Soc. S. 181+120 427 Embredo, P-p
A.B., Stanford, 1931
Alden, John Gustavus Palo Alto LD 59+37 316 Encina-*2257*
Aldrich, Helen Louise Inspiration, Ariz. Math. 94·86+153 Chi Omega
A.B., Stanford, 1931
[5]Aldwell, Eileen Atherton Cl.Lit. gr. Pi Beta Phi-*1918*
A.B., Stanford, 1931
[4]Alexander, Alice Malvina Shafer, Minn. LD ‡ 14+4 565 Salvatierra
[234]Alexander, Martha Barker Piedmont Psych. 90·35+13 374 Roble-*2524*
[1]Alison, Helen Ralston Los Angeles LD 56–23 340 Roble-*2117*
Allan, Robert Myers Salida, Colo. S.Engr. 138+169 236 Toyon-*2441*
[234]Allen, Barbara Portland, Ore. Engl. 119+34 KappaKappaGamma
Allen, Caroll Fay Boise, Idaho Chem. gr. 656 Bryant, P-p
B.S., Idaho, 1930
[12]Allen, Charles Sumner, Jr. San Jose Econ. 88·93+36 Del. Tau Del.-*1363*
A.B., Stanford, 1931
[12]Allen, Daniel Woodside S.Bus. gr. Alpine Rd., W-*1708*
Ph.B., Yale, 1926
Allen, DeLora Lee Seattle, Wash. Engl.-P.Sp.95·85+77 1330Univ,P-p
A.B., Stanford, 1931
Allen, Glenn Philip Orange LD 93+33 852 Homer, P-p
Allen, Harold King Walnut Park Econ. 133+33 Phi Delta Theta
Allen, Harry Julian Los Angeles S.Engr.5·146+123 245Branner-*703*
[4]Allen, Hollis Partridge Claremont Educ. gr. 214 Union
A.B., Pomona, 1918; A.M., Stanford, 1925
[1]Allen, John French Palo Alto LD 37–19 1134 Emerson, P-p
[12]Allen, John Gilmore Stanford Univ. LD 21–26 321Encina-*637 Alvarado*
Allen, John Percival Portland, Ore. LD 89+93 Alpha Tau Omega-*1384*
Allen, Joseph Knight Provo, Utah Econ. 118·45–2 525University,P-p
[12]Allen, Madeline Frick Woodside S.Bus. gr. Alpine Rd., W-*1708*
A.B., Stanford, 1928

Allen, Mark Knight — Provo, Utah — Psych. gr. — 525 University, P-p
A.B., Brigham Young, 1926
Allen, Phillip Northrup — San Mateo — Econ. 90·90+95 — 222 7th, SM-sm
A.B., Stanford, 1931
Allen, Ralph Woodford — Seattle, Wash. — Pol.S. 180+213 — 1330 Univ., P-p
A.B., Stanford, 1931
Allen, Shannon Collier — Palo Alto — LD 70·58+7 — 1134 Emerson, P-p
[12]Allen, Tex Bollman — Spokane, Wash. — LD 82+38 — Alpha Tau Omega-*1384*
Allen, William Atwal — San Bernardino — S.Engr. 39·142+81 — Delta Chi-*1304*
Allmand, Robert Alfred — Los Angeles — Econ. 90·45+16 — 500 Encina-*1301*
Almack, Malcolm Dean — Stanford Univ. — LD 24–43 — 683 Alvarado
Almanzán, Roberto E. — Los Angeles — S.Engr.2·139–14 — 651Gilman,P-*654*
[3]Almquist, Lillian Emily — Fresno — Educ. gr. — 253 Roble
A.B., Fresno State College, 1925
Almquist, Rolland Francis — Los Angeles — LD 43+35 — 221 Encina-*1041*
[4]Altman, Roscoe M. — Bellingham, Wash. — Educ. gr. — 211 Union
A.B., Reed, 1928
[4]Alward, Thelma Vivian — Redding — Educ. gr. — Kingscote
A.B., San Jose State Teachers College, 1929
[4]Alward, Wanda Evelyn — Redding — Educ. gr. — Kingscote
A.B., Dominican, 1930
[5]Ambrose, John Willis — Pincher Creek, Alta. — Geol. 90·48+85 — 1110 Waverley,P-p
Amdahl, Olaf Knute — Spokane, Wash. — LD 40+17 — 358 Encina-*2212*
[5]Ament, Roger W. — Beverly Hills — Chem. 167+105 — 219 Ramona, P-p
[234]Ames, Edward P. — Phoenix, Ariz. — Soc.S.-Jn.90·30+13 — 419Encina-*811*
Ames, Richard Howell — Palo Alto — Pre-Med.112·44+29 — Htl.Pres.,P-p
[1]Amsden, Maurice Ralph — San Jose — Chem.gr. — 371E.SanSalvador,SJ-sj
A.B., Stanford, 1930
[2]Amyx, Darrell Arlynn — San Jose — Cl. Lit. gr. — 324 S. 11th, SJ-sj
A.B., Stanford, 1930
Andersen, Robert Tavier — Buellton — LD 45+32 — 209 Encina-*1637*
[4]Anderson, Anne Muriel — Santa Rosa — Zoöl. gr. — Pacific Grove-pg
A.B., Occidental, 1922
Anderson, Ben Taylor — Oakland — Chem. 182+60 — 210 Branner-*883*
A.B., Stanford, 1931
Anderson, Donald Malcolm — Irvington — M.E. gr. — 212 Sequoia
A.B., Stanford, 1930
Anderson, Eugene V. — Mt. Vernon, Wash. — Pre-Clin.135·51+53 — 421Kplng,P-p
A.B., Stanford, 1931
Anderson, Harry Davey — Weed — Econ.-Ac.115+62 — KappaSig.-*1326*
[13]Anderson, Hobson Dewey — Cupertino — Educ. gr. — Cupertino-Bx186,Rt.A,c
A.B., Stanford, 1929, A.M., 1930
Anderson, Jewell Margaret — Centerville — Hist. 135+139 — Gam. Phi Beta-*1337*
Anderson, Lorine Harriet — Taft — LD 41+18 — 326 Roble-*1973*
Anderson, Max-Leona — Menlo Park — LD 39+0 — Menlo Park-mp
[234]Anderson, Oscar Albin — Palo Alto — Educ. gr. — 2735 Cowper, P-*1702*
A.B., Cornell College, 1921; A.M., Stanford, 1929
Anderson, Stanley — Kingsbury — LD 55+13 — 400 Encina-*2582*
Andree, William Albers — Glendale — S.Engr. 90·47+23 — 327Emerson,P-p
[234]Andreini, George Leslie — Redwood City — Educ. gr. — 426 Webster, RC-rc
A.B., Stanford, 1930
Andrews, Axel William — Palo Alto — S.Engr. 90·58–7 — 2330ElCmno,P-p
Andrews, Carroll Baugh — San Fernando — Med. gr. — 101 27th St., SF-sf
A.B., Stanford, 1928
[34]Andrews, Cyril Mawdesley — Los Angeles — Fr. gr. — 1566 Cowper, P-p
A.B., St. Stephens, 1925
Andrews, Forrest Lee — Houston, Texas — Law gr. — 325 Alma, P-p
A.B., Rice Institute, 1930

Andrews, Mildred McIntyre — Corona — LD 97+68 — Delta Delta Delta-*1325*
[234]Angel, Arthur Desko — Pomona — Pol.S. gr. — 740 Santa Ynez
A.B., Stanford, 1930
[1]Anixter, Simon David — San Francisco — Law gr. — 759 Middlefield, P-p
A.B., California, 1927; LL.B., Stanford, 1931
[4]Annabel, Ada Marie — Tacoma, Wash. — Engl.-P.Sp. gr. — 320 Roble-*2118*
A.B., College of Puget Sound, 1930
Anthony, Berkeley Frederick — Los Angeles — LD 114–2 — Phi Kappa Psi
[3]Antonell, Emil Brackett — Phoenix, Ariz. — Pre-Med.11-167+30 — StanfordUnv.
[1]Applegarth, Norman William — Palo Alto — Law gr. — 435 Hamilton, P-p
A.B., Stanford, 1928, LL.B., 1931
[5]Applegate, Marion Virginia — Miami, Okla. — Soc.S. gr. — Harker's School, P-p
A.B., Stanford, 1931
Arbuckle, Ernest Comings — Santa Monica — LD 92+56 — Alpha Tau Omega-*1384*
Arditto, James Joseph — Amador City — Econ. 91-90+33 — 275 Hamilton, P-p
A.B., Stanford, 1931
[4]Argo, Arnold Clarence — Redwood City — Educ. gr. — 20 Hudson, RC-rc
B.S., Washington, 1912; A.M., Stanford, 1921
[4]Arkley, Sara B. — Los Gatos — Educ. gr. — 458 Lowell, P-p
A.B., Santa Barbara State Teachers College, 1929
[5]Arkush, J. Robert — Palo Alto — Law gr. — 1161 Lincoln, P-p
A.B., California at Los Angeles, 1929
[12]Armes, Jean Marie — San Francisco — Engl. 183+7 — Alpha Phi-*1387*
[5]Armstrong, Richard Townsend — Palo Alto — Chem. 95–10 — 135 Branner-*2311*
Armstrong, William Martin — Duncan,Okla. — E.E. gr. — 205 Emerson, P-p
A.B., Stanford, 1930
Arnold, Atlee Summerfield — Long Beach — Law gr. — 210 Union-*990*
A.B., California at Los Angeles, 1929
Arnold, Audra Elizabeth — Summit, N.J. — Chem. gr. — Madroño-*1552*
A.B., Mt. Holyoke, 1930
Arthur, Albert K. — San Mateo — S.Engr. 142+81 — 212 Toyon
Arthur, James Henry — Fullerton — Econ. 133+112 — 218 Branner-*933*
Arthur, Noel Lemuel — San Mateo — LD 49+20 — 228 Encina
[3]Artman, Corwin Walter — Long Beach — LD 135+67 — 441 Leland, P-p
[3]Artman, William Vaux — Long Beach — LD 36+7 — 441 Leland, P-p
[13]Artz, Louise Alice — Tustin — Hist. 187+224 — Delta Gamma-*1366*
A.B., Stanford, 1931
Ashby, Jack Lane — Oakland — Soc.S. 46-60+21 — 446 Encina
Ashby, Nanette Margretta — Tucson, Ariz. — Engl. gr. — 660 Salvatierra-*2654*
A.B., Grinnell, 1920; A.M., Arizona, 1927
Ashen, Ruth Geraldine — Sacramento — Engl.-P.Sp.90-90+124 — 367Rbl-*2275*
A.B., Stanford, 1931
[12]Ashley, George Munn — Newhall — LD sp. 10–31 — 359 Hawthorne, P-p
Asmann, John Henry — Cincinnati, Ohio — Econ. 181+109 — 205 Emerson, P-p
A.B., Stanford, 1931
Asquith, Richard Lionel — San Francisco — Hist.(Ind.Study) — Al.Sig.Phi-*1357*
A.B., Stanford, 1931
[1]Athearn, Albon George — Alameda — LD 13+0 — Encina-*897*
[4]Atkinson, Arthur M. — Pittsburgh, Pa. — Educ. gr. — Menlo Park-mp
B.S., Pittsburgh, 1929, A.M., 1930
[5]Atkinson, Ernst Albert — Missoula, Mont. — Psych. gr. — 1952 Waverley, P-p
A.B., Denver, 1920; A.M., Montana, 1922
[23]Atkinson, Robert Stansbury — Reno, Nev. — LD 44-75+10 — Zeta Psi
[4]Atkisson, E. James, Jr. — Sanger — LD 46+13 — 23 Toyon-*1906*
Atlas, Irving — San Jose — Econ. 143+84 — 66 Atlas, SJ-sj
[29]Atterbury, Charles Bernard — Oakland — LD 30–2 — 408 Encina
Attwood, Cyril John — Centerville — Med. gr. — 2758 Pierce, SF-sf
A.B., Stanford, 1927

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| [234]Atwill, EdwardRobert<br>A.B., Stanford, 1926 | Bakersfield | Geol. gr. | Bakersfield-Box 552, b |
| [5]Atwill, John R., Jr.<br>A.B., Stanford, 1928 | San Gabriel | Law gr. | 611 Waverley, P-*1* |
| [4]Atwood, Alice Goldthwaite<br>A.B., Pomona, 1925 | Taft | Educ. gr. | 559 Cowper, P-p |
| Auld, Charles Cather | Red Cloud, Nebr. | LD 45+25 | 210 Encina-*1543* |
| Austin, Fred P., Jr.<br>A.B., Stanford, 1931 | Chandler, Ariz. | Econ. 90·94+41 | 327 Emrsn, P-*2139* |
| [1]Austin, Spencer Tragaser | Santa Monica | Econ. 149+43 | 228 Branner-*2134* |
| [4]Austin, Wilfred Gordon<br>A.B., Arizona, 1926 | Chandler, Ariz. | Educ. gr. | 557 Lasuen-*1335* |
| [34]Avary, Edwin Davis | Oakland | Econ. 106+44 | DeltaTauDelta-*1363* |
| [5]Avery, Kenneth Gilcrest | Pasadena | Hist. 129+2 | AlphaSigmaPhi-*1357* |
| [234]Avery, Paul Walker | Palo Alto | Geol. 133–9 | 151 Embarcadero, P-p |
| [5]Avila, Pablo | Garden Grove | Fr. 167+174 | 211 Sequoia |
| [1]Avilla, Leonard Ray<br>A.B., Stanford, 1925 | Palo Alto | Law gr. | 567 Lincoln, P-p |
| Ayer, Robert Warren<br>A.B., Stanford, 1931 | Los Gatos | S.Engr. 90·93+93 | 106 Sequoia |
| [23]Ayers, Dallas Waldo<br>A.B., Stanford, 1931 | Modesto | S.Engr. 90·104+3 | 109 Sequoia |
| Aynesworth, Anna Louise | Fresno | LD 45+53 | 260 Roble-*2016* |
| [1]Aynesworth, Robert Hickman | Fresno | LD 8–10 | 230 Encina-*2016* |
| Azevedo, Joseph Leo<br>A.B., Stanford, 1929 | Alameda | Med. gr. | 1504 Alameda, A-a |
| Azevedo, Manuel Arthur | Stanford Univ. | LD 44+16 | 31 Encina-*2668* |
| Azhderian, Wentworth | Los Angeles | Econ.-Ac.93·43+26 | 541Salvatierra |
| Babberger, Carl William | San Jose | S.Engr.90·49+46 | 375E.S.Cl.,SJ-sj |
| [234]Babcock,Gertrude<br>A.B., Albion, 1908 | Highland Park,Mich. | Educ. gr. | Madroño |
| Babson, Edmund C.<br>A.B., Stanford, 1930 | Portland, Ore. | Min. gr. | Theta Xi |
| [4]Bachman, Jerome N. | San Francisco | LD | 216 Toyon |
| Bacon, Charles<br>B.S., Princeton, 1930 | Bronxville, N.Y. | Chem. gr. | 684 Mirada |
| Bacon, Clyde Reid | Twin Falls, Idaho | LD 46+46 | 402 Encina-*1491* |
| [5]Bacon, Harold Maile<br>A.B., Stanford, 1928, A.M., 1929 | Los Angeles | Math. gr. | 565 Lasuen-*1144* |
| Bacon, John Elmer, Jr. | Miami, Ariz. | LD 44+6 | 129 Encina-*851* |
| Badcon, James Robert | Stanford Univ. | LD 85+26 | 694 Alvarado-*1095* |
| [5]Badger, Carlos Jenkins<br>Graduate, U.S. Naval Academy, 1922 | Salt Lake City, U. | Law gr. | 947 Webster, P-p |
| Badger, Edith Anne<br>A.B., Stanford, 1931 | Long Beach | Hist. 90·90+79 | 106 Roble-*1707* |
| [4]Badgley, Herbert Harland<br>A.B., Montana, 1923 | Billings,Mont. | Educ. gr. | 334 Lincoln, P-*997* |
| [23]Baer, Leonard | San Francisco | LD 28+21 | 345 Forest, P-*2443* |
| Bagley, Charles Miller | Duluth, Minn. | LD 54·49–2 | 13 Encina-*686* |
| [12]Bagley, Phillip Haber<br>A.B., Stanford, 1931 | Fresno | Econ. 180+52 | 419 Encina-*604* |
| [12]Bailey, Barbara<br>A.B., Stanford, 1931 | Minneapolis, Minn. | Soc.S. 94·86+102 | Alpha Phi-*1387* |
| [4]Bailey, Elba Norse<br>B.S., California, 1918 | Los Angeles | Educ. gr. | 319 Union |
| Bailey, Frederick Homer | Canutillo, Texas | LD 92+118 | 310 Sequoia-*1073* |
| Bailey, Lois Ruth | Palo Alto | Hist.(Ind.Study) | 168 Wvrly, P-p |

Bailey, William Russell — Riverside — Econ.90·103+44 — 844Addison,P-*521*
A.B., Stanford, 1931
Baily, Frederick Lang — Los Angeles — LD 59+8 — 125 Encina-*1611*
Baily, Joseph — Spokane, Wash. — Soc.S.-Jn.181+167 — 421Kipling,P-p
A.B., Stanford, 1931
[4]Bain, Verne Dale — Woodburn, Ore. — Educ. gr. — *272* Fulton, RC-rc
A.B., Willamette, 1923; A.M., Oregon, 1929
[23]Baird, Robert E. — Los Angeles — Engl. 108+50 — 21 Toyon-*954*
Bairos, Cyril Anthony — Pleasanton — E.E. gr. — 335 Union-*1967*
A.B., Stanford, 1929, Engineer, 1931
[5]Baker, C. Everett — Long Beach — Pol.S. gr. — *226* Sequoia-*1966*
A.B., Stanford, 1931
Baker, Edward William — Petaluma — LD 46+36 — 404 Encina-*1847*
Baker, Franklin Harvey — Gardnerville, Nev. — LD 48+22 — 27 Encina-*2221*
Baker, George Sherwood, Jr. — Los Angeles — Econ. 90·49+20 — 423 Palm, P-p
[4]Baker, Harry Leigh — Lawrence, Kans. — Educ.gr. 463 — Harvard,P-(Sta.A)p
A.B., Baker, 1920; B.S., Kansas State Agricultural, 1922; A.M., Chicago, 1928
Baker, H. North — Los Angeles — LD 45+42 — 139 Encina-*1633*
Baker, John Stavely — Lindsay — M.E. gr. — 612 Palo Alto, P-*2821*
A.B., Whittier, 1929
Baker, Lawrence Nathan — Bakersfield — S.Engr. 45·99+169 — 434Encina-*1321*
Baker, L. Philip — Watsonville — Econ. 137+122 — Zeta Psi-*B*
Baker, Marie Katherine — Huntington Park — LD 91+88 — Gamma Phi Beta-*1337*
[1]Baker, Patty — Winters — Engl.-P.Sp. 43·46+47 — Chi Omega
Baker, Robert Nesbit — Venice — Law gr. — Phi Kappa Sigma
A.B., California at Los Angeles, 1929
[4]Balabanis, Homer Paul — Arcata — Econ. gr. — Stanford Univ.
Ph.B., Chicago, 1920, A.M., 1923
[5]Baldwin, Ernest Joy — Pocatello, Idaho — Chem. gr. — 1455 Cambridge, P-p
B.S., Kansas, 1915, M.S., 1917
[1]Baldwin, Gerald Lewis, Jr. — San Diego — Econ. 90·9–19 — 305 Lytton, P-p
[12]Baldwin, Harriet Irene — Chandler, Ariz. — LD 52–10 — Gamma Phi Beta-*1337*
[5]Baldwin, Paul Myron — San Jose — Bact. gr. — 599 S. 10th, SJ-sj
A.B., Stanford, 1928
Balfour, Barbara — S. Pasadena — LD 90+31 — Pi Beta Phi-*1918*
[4]Ball, Calvin Arland — Orosi — Educ. gr. — 355 Fulton, P-p
A.B., Chico State Teachers College, 1929
[5]Ball, Margaret — Santa Monica — Pol.S. gr. — 615 Salvatierra
A.B., Stanford, 1931
Ballard, Eaton Walling — Seattle, Wash. — Soc.S. 7·122+130 — 131 Toyon-*2726*
Balzer, Robert Lawrence — Los Angeles — LD 42+19 — Kingscote-*137*
Bancroft, Lucy Eldred — Walnut Creek — Engl. 39·149+61 — Alpha Phi-*1387*
A.B., Stanford, 1931
Bancroft, Martin F. — Walnut Creek — Med. gr. — 2321 Sacramento, SF-sf
A.B., Stanford, 1929
Bandy, Gregg Chandler — Eugene, Ore. — LD 43–26 — 120 Encina-*14*
Bangs, Crompton, Jr. — Palo Alto — LD 40·49+79 — 345 Forest, P-p
Banks, Harvey Oren — Baldwinsville, N.Y. — C.E. gr. — 7 Union-*1104*
B.S., Syracuse, 1930
Bannard, Louis Otto — Los Angeles — Engl.-P.Sp. 148+86 — 108 Brnr-*814*
Bannerot, Richard Alexander — Burlingame — Chem.90·47+74 — 512PrmrseRd.,B-b
Bannister, Wayne A. — Denver, Colo. — LD 39·48+76 — 217 Encina-*1030*
[4]Banta, Donald Marion — Santa Cruz — Engl. gr. — 333 Waverley, P-p
A.B., Spokane, 1920; M.S., Idaho, 1925
Barbee, Elizabeth Lee — Long Beach — Hist.55·125+53 — Gam.PhiBeta-*1337*
A.B., Stanford, 1931
[4]Barbou, Elisabeth Anne — Rock Island, Ill. — Fr. gr. — *279* Roble-*93*
A.B., Augustana, 1928; A.M., Iowa, 1930

Barbour, Benjamin Rogers — Mill Valley — LD 45+0 — 302 Sequoia-*1983*
Barbour, Dana Mills — Seattle, Wash. — Pol.S. gr. — 209 Union-*1105*
A.B., Washington, 1929
Barbour, Robert Llewellyn — San Diego — Law gr. — 309 Union-*702*
A.B., San Diego State Teachers College, 1930
[1]Bardin, Jim Gordon — Salinas — Econ. 180+95 — Phi Sig. Kappa-*538*
A.B., Stanford, 1931
[12]Bardin, William Joseph — Salinas — S.Engr. 193+279 — Phi Sig.Kap.-*538*
A.B., Stanford, 1931
Bark, William Carroll — Tacoma, Wash. — Hist. 184+277 — Sig.AlphaEps.-*1305*
A.B., Stanford, 1931
Barkelew, Patricia Willa — Pasadena — LD 45+33 — 101 Roble-*588*
[5]Barker, Edna Lizabeth — San Francisco — Psych. 126+98 — 208 Roble
Barker, Guy, Jr. — Palo Alto — Phil. 152+137 — 208 Escobita, P-p
Barker, Harry Edwin — San Francisco — Med. gr. — 2186 California, SF-sf
A.B., Stanford, 1930
Barker, Ralph Randolph, Jr. — Newport,R.I. — LD 89+12 — 128 Branner-*507*
[124]Barker, Roger Garlock — Redwood City — Psych. gr. — 707 Adams, RC-rc
A.B., Stanford, 1928, A.M., 1930
Barks, William George — Monrovia — S.Engr. 174–18 — Phi Delta Theta
[12]Barmore, Mark Alfred — Whittier — Chem. gr. — 215 Union-*1262*
A.B., Whittier, 1927; A.M., Stanford, 1929, Ph.D., 1931
[12]Barnaby, Joseph Thomas — Seattle, Wash. — Zoöl. gr. — 943 Bryant, P-p
B.S., Washington, 1929
Barnard, Donald — Palo Alto — LD 70+7 — 1189 Hamilton, P-p
[23]Barnard, Lynn L. — Los Angeles — Psych. 18·139–25 — 26 Branner
Barnes, Frank P. — Wrangell, Alaska — LD 44+1 — 351 Encina-*632*
Barnett, Jack William — Pasadena — Econ. 88·93+94 — *229* Union-*952*
A.B., Stanford, 1931
Barr, James Adam — Berkeley — Med. gr. — 2180 Washington, SF-sf
A.B., Stanford, 1930
Barrett, Betty — Palo Alto — LD 90+13 — 576 E. Crescent, P-p
[3]Barrett, Doris — Palo Alto — LD 55–1 — 576 E. Crescent, P-p
Barrett, Edward Lawrence — Albany, Ore. — Law gr. — 1009 High, P-p
A.B., Notre Dame, 1929
Barrett, Steven Lewis — San Francisco — LD 86+57 — 583 Salvatierra-*1653*
Barry, Edwin Fry — Marshall, Texas — M.E. gr. — 750 Forest, P-p
B.S., Alabama Polytechnic Institute, 1914; Engineer, Stanford, 1931
[4]Barry, John H. — Phoenix, Ariz. — Educ. gr. — 731 Homer, P-p
Ed.B., Tempe State Teachers College, 1927
Barry, John Richard — Petaluma — Econ. 90·90+14 — *22* Branner
A.B., Stanford, 1931
[1]Barry, Marie Louise — Marshall, Texas — Educ. gr. — *333* Roble
A.B., Texas, 1926
Barstow, Alfred Gary — Alhambra — Pol.S. 181+51 — 659 Salvatierra
A.B., Stanford, 1931
[23]Barstow, Frederick E. — Midland, Mich. — LD 32+49 — 251 Encina-*2364*
[23]Bartholomew, Paul Stanley — Sycamore,O. — Zoöl. gr. — 635 Salvatierra-*6*
A.B., Heidelberg, 1928; A.M., Stanford, 1931
Bartlett, Aurelius T. — St. Louis, Mo. — Econ. 136+23 — Alpha Delta Phi-*J*
Bartlett, Grant Rogers — Chicago, Ill. — LD 45+10 — 116 Encina-*2144*
[12]Bartlett, John Cannon — Groveland — Psych. 90·39–11 — 660Waverley,P-p
Bartlett, John Carleton — Berkeley — Pre-Med. 148+60 — 2200 Wvrly, P-p
[4]Bartlett, Leonard Irving — Modesto — Soc.S.-Jn. gr. — 203 Toyon-*1855*
A.B., Stanford, 1930
Bartlett, Lowell Edgar — Ontario — Law gr. — 511 Encina-*2226*
A.B., Stanford, 1929

Bartlett, Muriel deFontenay — Berkeley — Engl.34·148+57 — DeltaGamma-*1366*
A.B., Stanford, 1931
[1]Barton, Max Wilfred — Vallejo — Econ. 21·159+44 — 115 Toyon-*618*
A.B., Stanford, 1931
Bartonek, Cloyd Ogden — Ogden, Utah — S.Engr. 91·98+66 — 235 Union-*2458*
A.B., Stanford, 1931
[4]Baskerville, Harry H., Jr. — Los Angeles — LD ‡ — Kappa Sigma-*1326*
[14]Bass, Thomas J., Jr. — San Francisco — Math. gr. — 533 Encina-*1557*
A.B., Stanford, 1930
Bassett, David Lee — Stanford Univ. — LD 47+17 — 740 Santa Ynez-*1858*
[23]Bates, Dana Barker — Santa Monica — S.Engr. 92·32+26 — 248 Encina-*1936*
Bates, Francis, Jr. — Los Angeles — S.Engr. 140+87 — Phi Delta Theta
Bates, W. Bernarr — Santa Monica — Span. 132+131 — 311 Toyon-*1936*
Bates, William Frederick — Los Angeles — LD 96+43 — Phi Delta Theta
[2]Batman, LaVern R. — Grants Pass, Ore. — LD 101+45 — 211 Branner-*1727*
[1]Batterton,Pauline Todd — Birmingham,Ala. — Hist. 110·13+3 — 282 Roble-*1426*
Bauer, Edward Martin, Jr. — San Mateo — Soc.S.-Jn.90·51+32 — 365Fx.,SM-sm
[12]Bauer, Karl Hermann — Elmhurst, Ill. — Germ. 65·115+85 — 229 Union-*1083*
A.B., Stanford, 1931
[1]Bauer, Paul Harolde — Champaign, Ill. — Econ. 135·30+10 — Maybelle, P-p
Baumgarten, Robert Eric — Los Angeles — Econ. 180+102 — Alpha Delta Phi-*J*
A.B., Stanford, 1931
Baxter, Philip Norman — Stockton — Med. gr. — 2300 Webster, SF-sf
A.B., Stanford, 1925
Baxter, Robert Harold — Los Altos — Econ. 83+6 — Alpha Sigma Phi-*1357*
Bayha, Walter George — Palo Alto — S.Engr. 87·46+32 — 740 Homer, P-p
[4]Bean, Jackson Fynn — San Francisco — LD — 111 Toyon
[1]Beard, John Winter — Palo Alto — Hist. 180+6 — 510 University, P-p
A.B., Stanford, 1931
Beard, Rodney Rau — Berkeley — Zoöl. 138+90 — 305 Sequoia-*567*
[4]Beardsley, Cora Aileen — Los Angeles — Educ. gr. — Madroño-*123*
B.S., Southern California, 1929
[4]Bearnson, Julius B. — Salt Lake City, Utah — Econ. gr. — 323 Lytton, P-p
B.S., Utah Agricultural, 1916; A.M., Stanford, 1917
[1]Beattie, Clay Hathaway, Jr. — Covina — S.Engr. 180+32 — Theta Xi
A.B., Stanford, 1931
Beaty, Cecil Jack — San Francisco — LD 43+9 — 325 Encina-*1811*
[134]Bechtel, Kenneth Philip — Holtville — LD 29+33 — 42 Encina-*2017*
Becker, Walter Nicholas — Sacramento — Med. gr. — 2207 Clay, SF-sf
A.B., Stanford, 1928
Beckett, Richard Collier — Palo Alto — LD 93+137 — 1029 Ramona, P-p
Bedford, Dan Vale — Santa Monica — Econ. 119+181 — Sigma Chi
Bedford, Thomas Archibald — Berkeley — S.Engr. 185+142 — 249 Branner-*2665*
A.B., Stanford, 1931
Bednar, James Edmund — Omaha, Neb. — Hist. 139+225 — Phi Gamma Delta
[23]Beede, Henry Fuller — Antioch — LD 26–11 — 127 Encina-*1442*
[12]Beede, Ruth May — Antioch — Soc.S. 110·70+50 — Alpha Phi-*1387*
A.B., Stanford, 1931
[12]Beeman, Howard Dean — Woodland — S.Engr. 197+300 — 249 Branner-*2665*
A.B., Stanford, 1931
Beemer, Paul Kaler — Montague — S.Engr. 97·45+53 — 312Sequoia-*2175*
Beene, Adron Ambros — Las Cruces, N.M. — Law gr. — Kappa Sigma-*1326*
A.B., Baylor, 1929
Beenfeldt, Norman — San Francisco — LD 75+44 — Sigma Alpha Eps.-*1305*
[12]Begien, John Thayer — Richmond, Va. — Chem. 102·62–12 — 562 Encina-*3028*
Behner, Alice Maud — Billings, Mont. — Psych. 187+308 — 384 Roble-*2157*
A.B., Stanford, 1931

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|---|---|---|---|
| [1]Beinhorn, Charles Oliver<br>A.B., Stanford, 1931 | Exeter | Econ. 127·53+26 | 543 Forest, P-p |
| Belknap, Byron Burdette<br>A.B., Idaho, 1930 | Lewiston, Ida. | Law gr. | 327 Waverley, P-p |
| [5]Bell, James Forbes | Pocatello, Ida. | LD 104+106 | Theta Chi-*1383* |
| [4]Bell, Lydia Forbes<br>A.B., Nebraska, 1903 | Pocatello, Ida. | Educ. gr. | 576 Alvarado-*1383* |
| [12]Bell, Ralph Marion | Paso Robles | Pre-Med.90·70–2 | PacificGrove-pg |
| [1]Bell, William Harold<br>B.S., Utah Agricultural, 1923, M.S., 1931 | Logan, Utah | S.Bus. gr. | 1247 Stanford, P-p |
| Bellmer, Alice | Sacramento | Econ. 90·45+19 | 280 Roble-*2473* |
| Belmont, Alan Harnden<br>A.B., Stanford, 1931 | Santa Cruz | Econ.-Ac. 135·45+63 | 204 Un.-*1126* |
| [4]Benard, Emilio Sadi | San Francisco | LD | 132 Toyon |
| Bendetson, Karl R.<br>A.B., Stanford, 1929 | Aberdeen, Wash. | Law gr. | Theta Delta Chi-*2209* |
| [4]Benet, James Walker, II | Saratoga | LD | Saratoga-*2642* |
| Benitz, Paul Anthony<br>B.S., Notre Dame, 1927; A.M., Stanford, 1931 | Palo Alto | Math. gr. | 930 Waverley, P-p |
| Bennett, Dudley Gates | San Francisco | Pre-Med.144+54 | 103Branner-*1120* |
| Bennett, Jackson Kirby | Santa Clara | LD 96+52 | Santa Clara-*658* |
| [1]Bennett, Lauren Keith<br>A.B., Willamette, 1928; A.M., Stanford, 1931 | The Dalles, Ore. | Chem. gr. | 409 Encina-*1703* |
| [12]Benninger, Edgar Robley<br>A.B., Stanford, 1931 | San Francisco | S.Engr.191+89 | DeltaT.Delta-*1363* |
| [5]Benson, Lyman<br>A.B., Stanford, 1930 | Kelseyville | S.Biol. gr. | 513 Encina-*1076* |
| Bentel, Dwight E. | San Francisco | Educ. 51·77+16 | 613 Slvtra-*1571* |
| Benton, Jess Earl | El Paso, Texas | LD 57+30 | 110 Encina-*1207* |
| [4]Benton, Webster Jerome<br>A.B., San Jose State Teachers College, 1931 | San Jose | Educ. gr. | 562 S. 6th, SJ-sj |
| Berard, Edmond Henri<br>Mining Engineer, École des Mines et de Metallurgie, Mons, 1929; Engineer, Stanford, 1931 | Mons, Belgium | E.E. gr. | 235 Union-*2752* |
| Berger, Frederick John, Jr.<br>A.B., Linfield, 1927; A.M., Stanford, 1931 | Portland, Ore. | Pol.S. gr. | 301 Union-*715* |
| Bergstrom, George Edwin | Beverly Hills | Econ.131+120 | 144Kingsley,P-*1385* |
| [1]Bering, Barry Farmer<br>A.B., Stanford, 1926, A.M., 1929 | San Francisco | Math. gr. | 257 Toyon |
| Bering, Keith Everton<br>A.B., Stanford, 1931 | San Francisco | S.Engr. 5·175+17 | 251 Toyon-*2383* |
| [1]Bernard, Harold W.<br>A.B., Spokane, 1930 | Coeur d'Alene, Ida. | Educ. gr. | 557 Lasuen |
| Berner, Elmer Thomas | Vallejo | LD | 1047 Ramona, P-p |
| Bernhard, Brant | San Mateo | Econ. 90·47+9 | Delta Upsilon |
| Bernhard, Lazare Fred<br>A.B., Stanford, 1929 | Los Angeles | Law gr. | 546 Encina-*562* |
| [4]Bernhardt, Dorothy Louise | Glendora | LD | 246 Roble-*1892* |
| Bernhauer, Arthur Claude | Fresno | Econ. 136+62 | 131 Toyon-*628* |
| Bernthal, Herbert George | San Francisco | LD 66+4 | Kappa Sigma-*1326* |
| [5]Berry, John Wesley<br>A.B., Stanford, 1930 | Oakdale | Educ. gr. | 502 Encina-*2668* |
| Berryhill, James Guest, III | Berkeley | LD 43+14 | 218 Encina-*30* |
| Berryman, Waldo Boyd<br>A.B., Stanford, 1931 | Palo Alto | S.Engr. 180+148 | 558 Lincoln, P-p |
| Best, William Franklin | Los Angeles | LD 86-16 | Phi Kappa Sigma |
| [1]Best, William Sinclair<br>A.B., Stanford, 1931 | Pasadena | Econ.-Ac. 183+210 | PhiDeltaTheta |

[14]Betteley, Alfredo — Valparaiso, Chile — Econ. 117+43 — 138 Toyon-*1259*
Bettman, Gerald L. — San Francisco — S.Engr. 5·185–5 — 246 Toyon-*2811*
Beuter, Edmund Frederick — Portland, Ore. — LD 47+56 — 308 Encina-*881*
Beverstock, Roswell C. — Los Angeles — Econ. 180+96 — 132 Toyon-*1118*
A.B., Stanford, 1931
Beyer, Nicholas Serge — Palo Alto — S.Engr. 198+2 — 313 Everett,P-p
A.B., Stanford, 1931
[5]Biggs, Warren — Los Angeles — Econ. 126+105 — Phi Kappa Psi
[4]Bigotti, Richard Thomas — San Jose — S.Biol. 95·94–5 — 64 Union, SJ-sj
Billig, H. Ellsworth — Long Beach — Med. gr. — 2136 California, SF-sf
A.B., Stanford, 1928
[12]Bing, Dana Gerald — Bakersfield — C.E. 180+179 — PhiSigmaKappa-*538*
A.B., Stanford, 1931
[4]Bingaman, Jesse Francis — Silver City, N.M. — Chem. gr. — 219 Toyon
B.S., New Mexico State Teachers College, 1931
Binkley, John Bernard — Cobb — S.Engr. 182+64 — 406 Sequoia-*2396*
A.B., Stanford, 1931
Binns, Barbara Lucile — Palo Alto — LD 45+37 — 361 Roble-*2177*
[5]Birch, Donald Courtney — Sausalito — Geol. 90·45+45 — Theta Xi
[4]Birchard, June Elizabeth — Beverly Hills — LD — 261 Roble
Birney, Jesse Edward — San Diego — Econ. 90·52+7 — 536 Alvarado
Birss, Spaulding — Santa Barbara — LD 90+53 — 715 Salvatierra-*2634*
[13]Birss, Whitelaw — Santa Barbara — Econ.90·5–18 — 715 Salvatierra-*2634*
Bisbee, Orrin William — Heppner, Ore. — Soc.S. 137+236 — 116 Toyon
[1]Bisceglia, Gabriel Angelo, II — San Jose — Econ. 187+97 — 212 Toyon
A.B., Stanford, 1931
Bishop, Beatrice Isabella — Sunnyvale — Econ. 126+116 — Del. Del. Del.-*1325*
Bishop, Eugene Carnes — Tigard, Ore. — Econ. 180+15 — Sigma Nu-*1385*
A.B., Stanford, 1931
Bissell, Dwight Montgomery — Woodlake — Med. gr. — 608 Fulton, P-p
A.B., Fresno State College, 1926; A.M., Stanford, 1931
de Bivort de la Saudée, Hervey — Palo Alto — M.E. gr. — 433 Addison, P-*1574*
A.B., Stanford, 1928
Blacet, Francis Edward — Palo Alto — Chem.gr. 1670College,P-(Sta.A)p
A.B., Pomona, 1922, A.M., 1925
[5]Black, Arthur Whitwell — Denver, Colo. — Geol. 143+76 — 219 Ramona, P-p
Black, Benjamin Marden — Piedmont — Pre-Clin.183+255 — 440Melville,P-p
A.B., Stanford, 1931
Black, Edith Virginia — San Diego — Educ. gr. — 651 University, P-*1035*
A.B., California, 1916
Black, George William — Portland, Ore. — Fr. gr. — 304 Union-*1463*
A.B., Oregon, 1928
Black, L. Wallace — Topeka, Kans. — Law gr. — 325 Alma, P-p
A.B., Washburn, 1929; LL.B., Stanford, 1931
[4]Black, Mary Steele — Battle Mt., Nev. — Educ. gr. — 259 Roble-*1188*
A.B., Columbia, 1923
[1]Black, Nolan William — Modesto — Econ.‡12–5 — 302 Sequoia-*1093*
Black, Raymond Kenneth — Sacramento — LD 90+82 — Phi Kappa Sigma
Black, William Carter — Hollywood — Med. gr. — 2406 Clay, SF-sf
A.B., Stanford, 1929
Blackman, Donald Moody — Stanford Univ. — LD 93+59 — Delta Upsilon
Blackman, John E. — Stanford Univ. — Hist. 135·53+12 — 421 Encina-*688*
A.B., Stanford, 1931
[5]Blackwelder, Gertrude — Stanford Univ. — Engl. 102+75 — Portola Road-*N*
[4]Blackwelder, Richard E. — Stanford Univ. — Zoöl. 140+87 — Pacific Grove-pg
[5]Blade, Ellis Hardin Ray — Belvedere — S.Engr. 46·98+120 — 432 Encina-*564*
[234]Blair, Julian M. — Boulder, Colo. — Chem. gr. — 330 Waverley, P-p
A.B., Vanderbilt, 1914, A.M., 1920

[34]Blair, Vivian Losse — San Jose — Engl. gr. — 1145 Martin, SJ-sj
A.B., Stanford, 1902

[3]Blair, Waddington — San Francisco — Educ. gr. — 79 W. Clay Park, SF-sf
A.B., Stanford, 1930

[4]Blakeslee, Kenneth R. — The Dalles, Ore. — Educ. gr. — 919 Addison, P-p
B.S., Oregon, 1926, M.S., 1929

Blakey, Carlota — Palo Alto — LD 58+69 — 610 Coleridge, P-p

Blanchard, Leland Bowman — Petaluma — LD 91+91 — Sigma Alpha Eps.-*1305*

[14]Blanchard, Wilmer Purvine — Petaluma — Econ.-Ac. 90·76+23 — 503Enc.-*1786*

Blasdel, Edward Knute — Redwood City — LD 40+0 — 652 Fulton, RC-rc

Blaye, Raphael Sylvester — Porterville — LD 93+1 — 310 Sequoia

Blethen, Howard Taylor — Los Gatos — Econ. 46·90–6 — Sig.AlphaEps.-*1305*

Blethen, Janet Crowley — Los Gatos — S.Bus. gr. — Alpha Phi-*1387*
A.B., Stanford, 1930

[12]Blevins, William Joseph, Jr. — Woodland — Pre-Med. 90·33–23 — 583Slvtra-*2651*

[1]Blichfeldt, Nora Anna — Oakland — Pol.S.135·45+46 — AlphaOm.Pi-*1367*
A.B., Stanford, 1931

[1]Blodgett, Harry Lyons — Beverly Hills — Law gr. — 603 Melville, P-p
A.B., Dartmouth, 1930

Bloom, Leonard James — San Francisco — LD 94+183 — 239 Toyon-*1683*

Bloyd, Robert Ritchie — Hanford — LD 49+32 — 325 Encina-*657*

[4]Bluett, Charles G. — Junction City, Ore. — Educ. gr. — Sigma Alpha Eps.-*1305*
A.B., Arizona, 1923; A.M., Oregon, 1926

Blum, Jean Myron — Los Angeles — Econ. 180+34 — 604 Gilman, P-p
A.B., Stanford, 1931

[1]Blum, Rudolph Antone — Woodland — S.Bus. gr. — 848 Delmas, SJ-sj
A.B., Nevada, 1928

Blume, John August — San Francisco — S.Engr. 119+124 — 181 Lytton, P-p

Blumlein, Joseph — San Francisco — LD 95+168 — 4 Kingscote-*981*

Bodenheimer, Ogden Welborn — Oakland — M.E. gr. — Portola Road-*839*
B.S., Colorado, 1930

Bodle, George Emery — Boise, Ida. — Law gr. — 947 Waverley, P-p
A.B., Stanford, 1930

Boeger, August George, Jr. — San Jose — Econ. 88·92+2 — Sigma Chi
A.B., Stanford, 1931

Boese, Walter Frederic — San Francisco — LD 70+25 — Kappa Sigma-*1326*

Bogan, Alfred Dean — Oceanside — LD 48+10 — 116 Encina-*1604*

Bogart, Walter Thompson — Los Angeles — Pol.S. gr. — 519 Webster, P-p
A.B., California at Los Angeles, 1930; A.M., Stanford, 1931

Bogert, Reid — Palo Alto — S.Engr. 45·100+47 — Delta Chi-*1304*

Boggs, Barbara Lee — Kelseyville — Pol.S. 132+95 — 219 Roble-*1130*

[12]Boggs, Robert William — Napa — LD 33–6 — Sigma Alpha Eps.-*1305*

[4]Bogie, Donald Leeman — Redwood City — Educ. gr. — 24 Fulton, RC-rc
B.S., Oregon Agricultural, 1923

Bogue, Harris Dixon — Burlingame — Hist. 181+94 — 201 Toyon-*2668*
A.B., Stanford, 1931

[4]Bohle, James Henry — Olympia, Wash. — Educ. gr. — 1641 Calif., P-(Sta.A) p
A.B., Willamette, 1922

[1]Bohn, John Augustus — Oakland — Pol.S. 120·60+55 — Al. Sig. Phi-*1357*
A.B., Stanford, 1931

[1]Bohne, Emmitt Jullion — Santa Clara — Educ. gr. — 964 Market, SC-sc
A.B., Stanford, 1926

[1]Bollinger, Fred Maurice — Advance, Mo. — Hist. gr. — 445 Encina
A.B., Southeast Missouri State Teachers College, 1927

Bonebrake, Roy Conrad — Stanford Univ. — Law gr. — 503 Encina-*1022*
A.B., Gettysburg, 1928

Bonn, Edna Vivienne — San Jose — LD 33·47+60 — 212 Roble-*2494*

Bonner, Charles Wolters — Palo Alto — Econ. 180+132 — 360 Forest, P-p
A.B., Stanford, 1931

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|---|---|---|---|
| Bonsall, William Hartshorn | Los Angeles | LD 44+62 | 362 Encina-*1961* |
| Bonte, John Storer | San Francisco | LD 88+39 | Zeta Psi-*B* |
| [4]Bonwell, William Alva<br>B.S., Kansas State Teachers College, 1924 | Wichita, Kans. | Educ.gr. | 540Bowdoin,P-(Sta.A)p |
| [13]Boogaert, Johan Cornelius<br>A.B., San Jose State Teachers College, 1929 | San Jose | Chem. gr. | SJ-Rt. 3, Box 651, sj |
| [14]Booker, Eugene Ryan<br>A.B., Stanford, 1924 | San Jose | Educ. gr. | SanJose-Bx531,Rt.1,SJ |
| Boone, Thomas Harold<br>A.B., Stanford, 1927 | Palo Alto | Med. gr. | 2321 Sacramento, SF-sf |
| Booth, Frank Ewen | El Segundo | Econ. 136+70 | Phi Delta Theta |
| [4]Booth, John M.<br>B.S., Idaho, 1917, M.S., 1929 | Veradale, Wash. | Educ. gr. | 739 Bryant, P-p |
| [1]Booth, Jonathan Charles | Long Beach | LD‡15–10 | 319 Encina-*2642* |
| Booth, Walter Sherman | Palo Alto | Soc.S. 90·45+5 | 120 Pope, P-p |
| [4]Boothe, Charles Beach | Los Angeles | LD | 121 Toyon |
| Boothe, Dyas Power, Jr.<br>A.B., Stanford, 1931 | Modesto | Econ.5·189+119 | DeltaT.Delta-*1363* |
| [4]Boren, Inez Mee | Burlingame | Educ.‡15+11 | 1429 Bellevue, B-b |
| Borley, William Edgar<br>A.B., Stanford, 1927 | Redwood City | Med. gr. | 876 Dunston, RC-rc |
| Bormann, Edwin Leroy | Hollywood | LD 7·45+12 | 207 Encina-*1881* |
| [23]Born, Helen Louise | Burlingame | LD 45+51 | 172 Roble-*1544* |
| Born, Ronald Henry | Burlingame | S.Engr. 148+68 | 247 Toyon-*1544* |
| Borton, Paul Richard | Bakersfield | LD 46+68 | 118 Encina-*1592* |
| Bosche, John Henry | Piedmont | Econ. 146+4 | Theta Chi-*1383* |
| Boscoe, Anthony Ralph<br>A.B., Stanford, 1929 | San Francisco | Med. gr. | 2300 Webster, SF-sf |
| Botasof, Isador W. | San Francisco | Econ. 146+197 | 103 Sequoia-*528* |
| [1]Bouelle, Mary Louise | Los Angeles | LD 9·57–15 | Kappa Alpha Theta |
| Boushey, Homer A., Jr. | Hollywood | LD 90+68 | Alpha Delta Phi-*J* |
| [5]Bovard, Richard H. | Berkeley | Econ. 148–11 | 680 Forest, P-p |
| [5]Bowen, Albert R.<br>A.B., Utah, 1930 | Salt Lake City, U. | Law gr. | 945 Webster, P-p |
| Bowen, Grant Leverett<br>A.B., Nevada, 1930 | Carson City, Nev. | Law gr. | 565 Salvatierra |
| Bowen, Kenneth Leroy<br>A.B., Stanford, 1931 | Stanford Univ. | Soc.S.-Jn. 39·148+126 | 570Mayfield |
| [5]Bowen, Robert Reeder<br>A.B., Utah, 1930 | Salt Lake City, U. | Law gr. | 945 Webster, P-p |
| Bower, Beulah Dorothy H.<br>A.B., Stanford, 1927 | Menlo Park | Zoöl. gr. | 817 Partridge, MP-mp |
| Bowles, Vernon Orrin<br>A.B., Stanford, 1931 | San Mateo | Chem. 5·182+127 | PhiSig.Kap-*538* |
| Bowman, Carl Andrew<br>B.S., Kansas State Teachers College, 1921; | Menlo Park | Educ. gr.<br>A.M., Northwestern, 1925 | Menlo School, MP-mp |
| Boyd, Eleanor Sprott | San Mateo | LD 93+154 | Kappa Kappa Gamma |
| Boydstun, Aubrey Charles | Eureka | Bact. 90·45+19 | 223 Cowper, P-p |
| [4]Boyer, Margaret<br>A.B., Oregon, 1926 | Eugene, Ore. | Engl. gr. | Madroño |
| Boyers, L. Morgan | Berkeley | LD 75+43 | 136 Branner-*2786* |
| Boyes, Hugh Herbert<br>A.B., Stanford, 1931 | San Jose | Bact. 90·90+49 | 1196 Sngltry,SJ-sj |
| Boyles, Edgar Amos | Sacramento | Econ. 159+148 | 225 Toyon-*1012* |
| Brackett, Anne Hoyt | Piedmont | LD 42+7 | 160 Roble-*2233* |
| [12]Bradford, Francis H. | Arbuckle | S.Engr. 159+1 | 242 Branner-*2497* |
| [13]Bradley, Harold Whitman<br>A.B., Pomona, 1925, A.M., 1926 | Palo Alto | Hist. gr. | 835 Homer, P-p |

Bradshaw, Douglas Bixby Wendell, Ida. Econ. 91-46+4 544 Encina-*2193*
[23]Bradshaw, Samuel Lockwood Los Angeles LD 75+131 583 Salvatierra-*597*
[23]Brady, Marshall James Castle Rock, Minn. Pol.S. 93-22–12 Menlo J.C., MP-mp
[12]Brainerd, James Lamb Atherton Econ. 182+62 Alpha Sigma Phi-*1357*
A.B., Stanford, 1931
[4]Braley, Warren Winslow Portland, Ore. LD 133 Toyon
[4]Bramel, Hadley R. Salt Lake City, Utah Engl. gr. Theta Xi
A.B., Stanford, 1930
Bramhall, Elinor Eugenia Fairoaks Phil. 90-34+26 161 Roble-*2114*
[4]Brandt, John Harold Cambridge, Ida. Educ. gr. 545 Forest, P
A.B., College of Idaho, 1926
[4]Brann, Ruth Eloise Palo Alto LD‡ U.S. Veterans' Hosp., P-p
[4]Branstator, Hilda Goerig Astoria, Ore. Educ. gr. 340 Roble
B.S., Oregon, 1928
[4]Branstator, Hope Virginia Astoria, Ore. Educ. gr. 338 Roble
A.B., Oregon, 1929
Brash, Sidney Herbert San Francisco Econ.-Acct. 122+88 213 Seq.-*1032*
Brassett, Arnold Harrison Kalispell, Mont. LD 49–14 41 Encina-*1295*
Brauns, Robert A. Iron Mountain, Mich. LD 47+82 401 Encina-*1841*
[23]Brayton, Donald Forrest Salt Lake City, U. LD 23-30+15 105 Encina-*614*
[4]Brecher, C. Rose San Jose Engl. gr. 177 Roble
A.B., Stanford, 1928, A.M., 1930
Breid, Elizabeth Wolz Toledo, Iowa S.Bus. gr. 565 Salvatierra-*1672*
A.B., Grinnell, 1929; M.B.A., Stanford, 1931
Brekelbaum, Erwin Carl San Jose LD 93+128 205 S. 9th, SJ-sj
[5]Brem, Thomas Hamilton Los Angeles Chem. 22-77+43 1465 Webster, P-p
Brenan, Henton Sawyer Redlands Pol.S. 138+45 307 Sequoia-*1215*
Breslauer, Winifred Chico Engl. 90-46+55 334 Roble-*1267*
[234]Brett, Alice Palo Alto Fr. 20-104+138 Delta Gamma-*1366*
[4]deBretteville, Alex, Jr. San Francisco Phys. 4-94+42 235 Toyon
[23]deBretteville, Charles San Francisco LD 30+12 210 Encina-*897*
Breuer, Albert William Burlingame Hist. gr. 219 Toyon
A.B., Stanford, 1930
[12]Breuer, Edward Otto Burlingame Econ. 180+111 219 Toyon
A.B., Stanford, 1931
Brewster, Hughes Dixon, Ill. Law gr. 420 Encina-*1468*
A.B., Stanford, 1928
[5]Breyer, Irving Gerald San Francisco Law gr. 604 Gilman, P-p
A.B., Stanford, 1929
Brian, Lawrence G. Poughkeepsie, N.Y. C.E. gr. 1001 Ramona, P-p
B.S., Ohio Northern, 1928; Engineer, Stanford, 1931
Brickey, Raymond Palo Alto Econ. 132+94 1146 Hamilton, P-p
[12]Brickley, Joseph Terrence Palo Alto LD 42+24 661 Gilman, P-p
[4]Briggs, Beatrice Thomas Los Gatos Educ.‡ Los Gatos-Box 241, Rt. A, lg
[4]Briggs, Elsie Elizabeth San Jose Educ. gr. 840 Plaza Dr., SJ-sj
A.B., San Jose State Teachers College, 1924
Briggs, Janet Zaph Santa Ana Min. gr. 312 Roble-*2414*
A.B., Stanford, 1931
Briggs, Mildred Pearl San Jose Hist. 93–6 Delta Gamma-*1366*
Briggs, Reid Richmond Los Angeles Hist.(Ind.Study) Sig. Alpha Eps.
Bright, Charles Joseph Oakland S.Bus. gr. 662 Mirada-*1644*
B.S., California, 1930
Brill, Henry Ettlinger Los Angeles LD 46+46 44 Encina-*1646*
Brilliant, Henry San Francisco Econ. 97 77+12 213 Sequoia-*865*
[23]Brinckerhoff, Albert Johnson Oakland LD 31+37 138 Encina-*626*
[12]Brink, Charles Marcellus Palo Alto Econ. 180+107 912 Channing, P-p
A.B., Stanford, 1931

Brink, Holden Edmund — Palo Alto — Med. gr. — 2317 Sacramento, SF-sf
A.B., Stanford, 1929
Brinton, Robert Louis — Mountain View — S.Engr.90-79+14 — 357View,MV-mv
Brissel, Frank George — Hollywood — Law gr. — 332 Forest, P-p
A.B., California at Los Angeles, 1928; LL.B., Stanford, 1931
[4]Brittell, Clarence A. — Hollister — Educ. gr. — 240 S. 12th, SJ-sj
A.B., San Jose State Teachers College, 1929
[4]Broadbent, Vernon Edgar — Santa Clara — Educ. gr. — Santa Clara-sc
A.B., Washington State, 1925
[2]Brock, Glenn Clark — Abilene, Texas — Chem. gr. — 1033 Guinda, P-p
A.B., Simmons, 1929; A.M., Stanford, 1930
[12]Brock, Joseph S. — Stanford Univ. — Law gr. — 519 Encina-*1174*
A.B., College of St. Thomas, 1926; LL.B., Stanford, 1931
[4]Brodie, Rose — San Diego — Span. gr. — 1020 Bryant, P-p
A.B., Arizona, 1925
[1]Brodrick, Richard Boyd — Piedmont — LD 50+12 — Phi Delta Theta
Brogger, Neil C. O. — San Francisco — Econ.90-45+15 — Al.Kap.Lamb.-*555*
[1]Bronson, Frank Stanislau — Beverly Hills — LD 68+1 — 651 Gilman, P
Brooks, Baylor — Los Angeles — Geol. gr. — 427 Webster, P-p
A.B., Stanford, 1928
Brooks, James — Los Angeles — S.Engr. 78+11 — 133 Branner-*2141*
[4]Brooks, Lloyd Lincoln — Stockton — Educ. gr. — 355 Fulton, P-p
A.B., Chico State Teachers College, 1930
Brophy, William Michael — Menlo Park — Econ.90-88+14 — MnloPk-Bx654,mp
[12]Brothers, Harrison S. — Los Angeles — Law gr. — 333 Waverley, P-p
A.B., California at Los Angeles, 1930
[3]Brotherton, Philip Agnew — Palo Alto — Educ. gr. — 420 Ramona, P-p
A.B., Santa Barbara State Teachers College, 1927
Brouse, Weldon Shields — Monrovia — Econ. 90-90+3 — Phi Delta Theta
A.B., Stanford, 1931
[1]Brown, Arthur Francis — Portland, Ore. — Econ. 90-54–17 — 205 Sequoia-*1092*
Brown, Carl Grover, Jr. — San Francisco — Econ. 141+49 — Phi Kappa Psi
Brown, Charles Francis — Piedmont — LD 51–3 — 138 Encina
[12]Brown, C. Howell — Santa Rosa — Chem. 90-58+25 — 109 Sequoia-*1892*
[4]Brown, Crawford Allen — Superior, Ariz. — Chem. gr. — 627 Homer, P-p
A.B., Lincoln Memorial University, 1925
Brown, David Edward — Indianapolis, Ind. — Pre-Med.135+100 — PacificGrove-pg
[5]Brown, David Kenyon — Los Angeles — S.Biol. 90-30+23 — Delta Chi-*1304*
Brown, Delmer Myers — Santa Ana — Pol.S. 90-46+31 — Delta Chi-*1304*
[1]Brown, Don Mackenzie — Los Angeles — Pol.S. gr. — LosAltos-Rt.1,Bx435,la
A.B., Pomona, 1929; A.M., Stanford, 1931
Brown, Dorothy Elise — Huntington Park — LD 30+27 — 327 Roble-*1824*
Brown, Dorothy Margaret — Palo Alto — Chem.gr. — U.S.Veterans'Hosp.,P-p
A.B., Stanford, 1930, A.M., 1931
Brown, Ellen — Berkeley — LD 47+81 — 232 Roble-*1853*
[4]Brown, Esther Eggers — Riverside — Engl. gr. — 344 Roble
A.B., Stanford, 1924
[2]Brown, Eugene Charles — Palo Alto — Educ. gr. — 529 Channing, P-p
B.S., San Jose State Teachers College, 1928
Brown, Eugene Francis — Los Angeles — LD 45+31 — 327 Encina-*1891*
Brown, Hugh Barclay — Los Angeles — LD 86+12 — Phi Delta Theta
Brown, Jack Douglas — Piedmont — LD 90–11 — 678 Mirada-*986*
Brown, Kenneth Morrison — Santa Clara — M.E. gr. — 811 Monroe, SC-sc
A.B., Stanford, 1930
[4]Brown, Kenneth Raymond — Fresno — Educ. gr. — 451Harvard,P-(Sta.A)p
A.B., Fresno State College, 1931
Brown, Lee Gorin — Sacramento — Law gr. — Phi Gamma Delta
A.B., Stanford, 1930

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| [4]Brown, Leonard Harvey, Jr. A.B., Stanford, 1931 | Palo Alto | LD 37–23 | 1725 Cowper, P-p |
| [12]Brown, Louis Daniel | San Francisco | S.Biol. 105·74–6 | 129 Emerson, P-p |
| [34]Brown, Lucy | Palo Alto | Econ. 108–7 | 2326 Ramona, P-p |
| [2]Brown, Marcella M. | Gilroy | Zoöl. 154+72 | 204 Roble-*1356* |
| [1]Brown, Marshall Roberts A.B., Stanford, 1931 | Palo Alto | Soc.S. 180+12 | 440 Coleridge, P-p |
| Brown, Meribel Lillian | Gilroy | LD 87+40 | 201 Roble-*1356* |
| Brown, Morden Grant A.B., Stanford, 1929 | Palo Alto | Phys. gr. | 1013 Ramona, P-*658* |
| Brown, Paisley | Phoenix, Ariz. | LD 88+39 | Delta Gamma-*1366* |
| [2]Brown, Prentiss A.B., Oregon, 1916; A.M., Stanford, 1930 | Palo Alto | Educ. gr. | 400 Channing, P-*1200* |
| [5]Brown, Ralph Milton A.B., California, 1930 | Modesto | Law gr. | 422 Encina-*1855* |
| [4]Brown, Robert Dixon B.S., Alabama, 1926, M.S., 1928 | Troy, Ala. | Chem. gr. | 224 Everett, P-p |
| [4]Brown, Robert Glenn | Palo Alto | LD | 379 University, P-p |
| Brown, Robert Minge A.B., Stanford, 1931 | San Francisco | Hist. 191+337 | 216 Encina-*2668* |
| [3]Brown, Sarah Helen A.B., California, 1924; A.M., Columbia, 1926 | San Bernardino | Psych. gr. | Univ. and Vine, P-*2* |
| Brown, Verne Wilton | Livermore | Econ.-Acct. 133+33 | 201 Brnr.-*2665* |
| Brown, W. Barret A.B., Stanford, 1931 | Los Angeles | Econ. 5·175+23 | 248 Branner-*2668* |
| Brown, William Hopkins | San Francisco | LD 98+45 | Phi Kappa Sigma |
| [1]Brown, Worth Alonzo | Capitola | Econ. 140+34 | MP-RFD 2, mp |
| Browne, Kenneth Alton A.B., Hastings, 1928; A.M., Stanford, 1931 | Hastings, Neb. | Educ. gr. | 428 Encina-*561* |
| [12]Brownell, Robert Coffin A.B., Stanford, 1931 | Los Angeles | Econ. 180+79 | Chi Psi-*1648* |
| [5]Browning, George Lewis A.B., Stanford, 1930 | Florin | Phyl. gr. | 216 Sequoia-*2361* |
| [5]Brownridge, Constance M. | Palo Alto | Econ. 117+70 | 902 Scott, P-p |
| Brownridge, William T. | Palo Alto | Econ. 5·163+42 | 902 Scott, P-p |
| [4]Brownton, Leighton Purdie | San Jose | LD‡ | 1264 Hanchett, SJ-sj |
| Brugman, John William | Hinsdale, Ill. | Econ. 43·78–16 | DeltaT.Delta-*1363* |
| [1]Brundage, John Crouch | San Jose | Econ. 90·85+1 | 202 Union-*947* |
| Brunson, Glenford R. A.B., Stanford, 1931 | Woodland | S.Engr. 90·92+31 | 303Sequoia-*2312* |
| [4]Bruntz, George G. A.B., Hastings, 1925; A.M., Stanford, 1928 | Los Gatos | Hist. gr. | 134 Loma Alta, LG-lg |
| Bryan, Cecil Eldridge, Jr. | Pasadena | LD 87–4 | Sigma Alpha Eps.-*1305* |
| [12]Bryant, Daniel Pennington A.B., Stanford, 1931 | Eagle Rock | Engl.-P.Sp. 121·66+41 | 543 Encina |
| [12]Bryant,StewartFrederick Graduate, U.S. Naval Academy, 1913 | StanfordUniv. | Pol.S. gr. | 755 Santa Ynez |
| Bryant, William Bruce | Monrovia | LD 9·86+101 | Sig. Alpha Eps.-*2674* |
| Bryner, Cyril A.B., Stanford, 1931 | Menlo Park | Slav. 92·88+97 | Johnson, MP-mp |
| Bubb, Charles R., Jr. | Mountain View | LD 64+51 | MV-Box 215,mv |
| [3]Buchanan, A. Russell A.B., Stanford, 1927, A.M., 1928 | Palo Alto | Hist. gr. | PA-Box 431, p |
| Buchanan, George S. | Palo Alto | Econ. 90·47–11 | 1727Waverley,P-p |
| Buckingham, Freda Marian A.B., Stanford, 1930 | Pasadena | Educ. gr. | Delta Delta Delta-*1325* |
| [23]Bucknam, Bettina | Wellesley Hills, Mass. | Psych. 100·33+25 | 373 Roble-*2613* |
| Buckwalter, John Cassel A.B., Stanford, 1924 | Palo Alto | M.E. gr. | 79 Crescent, P-p |

[13]Budd, Paul Lincoln — Honolulu, T.H. — Soc.S. 104+33 — Phi Sig. Kappa-*538*
[5]Budge, Hamer Harold — Boise, Idaho — Pol.S.91·42–10 — Sig. Al. Eps.-*1305*
Buehler, George S. — Whittier — LD 46+5 — 348 Encina-*2033*
[1]Bugge, Elwyn — Stanford Univ. — Educ. gr. — 607 Lasuen
A.B., Stanford, 1926
Bugge, Jacqueline — Menlo Park — Hist. 135+104 — Menlo Park, mp
[4]Bullard, Lyrel Douglas — Chico — Educ. gr. — Cowper Court, P-p
A.B., Chico State Teachers College, 1931
Bullard, Margaret M. — King City — Hist. 155+47 — 319 Roble-*1005*
Bullen, Reed — Logan, Utah — Law gr. — 250 Cowper, P-p
B.S., Utah Agricultural, 1929
Buller, Howard Leavelle — Los Angeles — LD 41+33 — 124 Encina-*2341*
Bullis, John Albert — Los Angeles — Med. gr. — 2345 Washington, SF-sf
A.B., Stanford, 1928
[5]Bunn, John William — Palo Alto — Phys.Ed. gr. — 273 Mariposa, P-p
B.S., Kansas, 1921
Bunnell, Jean — College, Alaska — Fr. 93·90+58 — Chi Omega
A.B., Stanford, 1931
Bunting, Edward Ramsey — Piedmont — LD 93+126 — 137 Toyon
[2]Bunting, Helen Masters — Stanford Univ. — *gr. — 736 Coronado-*825*
A.B., Stanford, 1924
[5]Bunting, John Antrim, Jr. — San Jose — Soc.S. 41·122+71 — Del.T.Del.-*1363*
Bunting, John R. — Red Bluff — LD 50+56 — 342 Homer, P-p
Burbank, Cecil Johnnie — San Jose — Phys. gr. — 324 Bellevue, SJ-sj
A.B., San Jose State Teachers College, 1930
Burch, Elmer Crowell — San Jose — LD 47–19 — 208 Encina-*2106*
[4]Burch, Mary Elizabeth — Oakland — Engl.‡ — 326 Roble-*2723*
Burch, Robert Boyd — San Diego — LD 46+25 — 328 Encina-*1226*
[4]Burdick, Harry Minor — Felton — LD‡ — 115 Toyon-*113*
[4]Burdsal, Dorothy P. — Phoenix, Ariz. — Educ. gr. — Roble-*2233*
A.B., Arizona, 1925
Burgess, John Rockett — Palo Alto — Econ.-Ac.185+182 — 241Toyon-*2668*
A.B., Stanford, 1931
Burke, Claire Mabel — Palo Alto — LD 45+40 — 1551 Emerson, P-p
Burke, Jack Daniel — Mountain View — Econ. 90·45+10 — 403 Encina
Burke, William Henry — Los Angeles — S.Engr. 206+72 — Phi Kappa Sigma
A.B., Stanford, 1931
[5]Burkhart, Oscar Edwin — Edgerton, Ohio — Educ. gr. — 656 Bryant, P-p
A.B., Illinois, 1922; A.M., Colorado State Teachers College, 1928; A.M., Stanford, 1931
[5]Burks, Paul — Los Angeles — Soc.S. 130+47 — Delta Upsilon
Burlew, Fred Northrop — Santa Ana — S.Eng.11·191+117 — 524Hmr,P-*1357*
A.B., Stanford, 1931
[5]Burnett, A. Dana — Maplewood, N.J. — Econ. 116+38 — 651 Gilman, P-*2501*
[5]Burnett, Andrew H. — San Francisco — Fr. 30·100+159 — 692 Mirada-*2667*
Burnett, Anne — San Mateo — Soc.S. 135+82 — 240 Roble-*2372*
Burnett, Bud Joseph — Seattle, Wash. — LD 52+24 — 407 Encina-*738*
Burnett, Marvin Aaron — Chehalis, Wash. — Econ. 91·44+47 — 445 Encina-*938*
Burnhill, Henry Clifford — Sacramento — Law gr. — 450 El Escarpado-*1487*
A.B., Stanford, 1929
[124]Burns, Edward Allen — Phoenix, Ariz. — Pol.S.82·57+3 — PhiSig.Kappa-*1437*
[4]Burns, Jack LeRoy — Roseville — Educ. gr. — 201 Homer, P-p
A.B., San Jose State Teachers College, 1928
[4]Burns, Lillian — Pullman, Wash. — Educ. gr. — 103 Roble
B.S., Oregon Agricultural, 1915, 1928

* No major department.

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| Burns, Milton Dearlove<br>A.B., Stanford, 1931 | Santa Cruz | Pol.S. 5·175+10 | Phi Delta Theta |
| [1]Burns, Robert Benton | Hollywood | Econ. 122+106 | Beta Theta Pi-*1335* |
| [5]Burns, Robert Edward<br>A.B., Stanford, 1929 | San Francisco | Law gr. | 524 Hamilton, P-p |
| Burroughs, Harriet Prescott<br>A.B., Stanford, 1931 | Healdsburg | Soc.S. 181+194 | 247 Roble-*1249* |
| [4]Burrows, Beatrice Glenice<br>A.B., Chico State Teachers College, 1931 | Orland | Psych. gr. | 1040 Ramona, P-p |
| Burtis, Prentis Townsend | Buffalo, N.Y. | LD 46+25 | 364 Encina-*2584* |
| Busey, Douglas Alan<br>A.B., Nevada, 1929 | Reno, Nev. | Law gr. | 565 Salvatierra |
| Bush, Clarence Edward<br>A.B., Stanford, 1931 | Los Altos | Econ. 180+12 | Los Altos-Bx 51c,la |
| Bush, Eleanor Isabel<br>A.B., Stanford, 1931 | Seattle, Wash. | Fr. 128·48+49 | 176 Roble-*1196* |
| Bush, Florence Lou | Sundance, Wyo. | LD 46–22 | 262 Roble-*2237* |
| [1]Bush, John Burchard<br>A.B., Stanford, 1931 | San Francisco | Geol. 118·76+7 | Menlo Park-*1712* |
| [12]Buterbaugh, Don Kay<br>A.B., Stanford, 1931 | Long Beach | Econ.180+37 | PhiSigmaKappa-*538* |
| Butler, Hubert O., Jr. | Los Angeles | LD 91+67 | Sigma Nu-*1385* |
| Butler, Wallace Pierce | Los Angeles | Econ. 137+124 | Delta Upsilon |
| Butter, Franklin Alfred, Jr.<br>A.B., Stanford, 1930, A.M., 1931 | San Jose | Math. gr. | 175W.SanCarlos,SJ-sj |
| [4]Butterway, Georgia Elizabeth | Chico | Hist.‡ | 524 Hamilton, P-p |
| Button, Robert Hilliard | Los Angeles | Econ. 90·86–8 | 1560 Univ., P-*2049* |
| Butts, John Humphrey<br>A.B., Stanford, 1931 | Wichita, Kans. | Econ. 44·138+93 | Delta Kappa Eps. |
| Byer, Glen Dale<br>A.B., Stanford, 1931 | Hamlin, Kans. | Educ. 90·101+79 | 201 Union-*1147* |
| [4]Byrd, Oliver Erasmus<br>A.B., Stanford, 1929 | Palo Alto | Econ. gr. | 197 Newell, P-p |
| [5]Byrne, Paul Francis<br>B.S., California, 1926 | Sacramento | E.E. gr. | 313 Union-*2351* |
| Caddel, Ernest Wiley, Jr. | Corcoran | Pre-Med. 97+3 | Kappa Sigma-*1326* |
| Caddy, Frank Edward<br>A.B., Stanford, 1931 | Casper, Wyo. | Chem. 181+16 | 236 Branner-*532* |
| Caglieri, Guido George<br>A.B., Stanford, 1931 | San Francisco | Econ. 181+33 | Phi Kappa Psi |
| Cahn, Richard Simon | San Francisco | LD 43·44+26 | 233 Encina-*592* |
| [12]Cain, Estill Virgil<br>A.B., State College of Washington, 1924; A.M., University of Washington, 1930 | Stanford Univ. | Law gr. | 301 Union-*2712* |
| [4]Cain, Leo Francis<br>A.B., Chico State Teachers College, 1931 | Chico | Educ. gr. | 211 Toyon |
| Caldwell, Philip Graham<br>A.B., Stanford, 1929, Engineer, 1931 | Piedmont | E.E. gr. | 313 Union-*60* |
| Callvert, Ronald S. | Portland, Ore. | LD 92+77 | Theta Xi |
| Cameron, Donald Churchill | Detroit,Mich. | LD 88+51 | 654 Cabrillo-*1115* |
| §[12]Cameron, Lewis Kean,Jr. | SanFrancisco | LD 14+14 | 123 Encina-*602* |
| Campbell, Allen Andrews<br>A.B., San Diego State Teachers College, 1930 | Coronado | Educ. gr. | 565 Salvatierra-*1261* |
| Campbell, Donald Stuart | San Francisco | LD 45+23 | 112 Encina-*894* |
| Campbell, Floyd Wallace | Portland, Ore. | LD 44–4 | 251 Encina-*1474* |
| Campbell, Gordon | Carmel | Pol.S. 61·78+42 | Delta Kappa Eps. |
| Campbell, Lois Edwina<br>A.B., Mills, 1930 | Inglewood | Educ. gr. | Delta Delta Delta-*2223* |

§ Deceased, February 28, 1931.

[23]Campbell, Malcolm — Portland, Ore. — Psych. gr. — University Park
A.B., Reed, 1928; A.M., Oregon, 1930
Campbell, Mélanie Wright — Porterville — LD 69+14 — Delta Gamma-*1366*
[34]Campbell, Orvin Watson — Lodi — Pol.S. gr. — 450 Encina
A.B., Stanford, 1929
Campbell, Thomas Miller — Portland, Ore. — LD 90+7 — Sigma Nu-*1385*
Campbell, William Alden — Sacramento — S.Engr. 136+77 — DeltaT.Delta-*1363*
[5]Campbell, William Giles — Palo Alto — Educ.gr. 711 — Columbia,P-(Sta.A)p
B.S., Southern California, 1927; A.M., Texas, 1928
[4]Campiglia, Lois Genevieve — San Francisco — LD‡ — 654 Cabrillo
Campiglia, Ralph Jetter — San Francisco — Pol.S. 181+79 — Phi Kappa Psi
A.B., Stanford, 1931
Cannon, Douglas V. — Chicago, Ill. — LD 92+17 — 651 Gilman, P-p
Cantin, A. Mackenzie — Mountain View — S.Engr. 153+27 — 211 Toyon-*1601*
[4]Capito, Charles Everett, Jr. — Los Angeles — Geol. gr. — Santa Paula-sp
A.B., Southern California, 1929
[4]Cappleman, John William — Fresno — Educ. gr. — 319 Alma, P-p
A.B., Fresno State College, 1926
Card, George Holt — Denver, Colo. — Min. gr. — 225 Kipling, P-*1302*
A.B., Stanford, 1924
Card, John Stark — Santa Monica — LD 84+20 — Kappa Alpha
Cardiff, Robert Lionel — Santa Cruz — S.Engr. 90·86–11 — 106 Sequoia-*853*
Cardozo, Manoel Soares — San Bernardino — Soc.S. 90·95+109 — 305 Union
A.B., Stanford, 1931
Carley, Leon Alanson — Stanford Univ. — Law gr. — 231 Union-*2665*
A.B., Stanford, 1929
[4]Carlson, John Lidstedt — San Mateo — Math. gr. — 16 Perry, MP-*1542*
B.S., Nevada, 1928
[4]Carlson, Reynold Edgar — Menlo Park — Educ. gr. — Menlo School, MP-mp
A.B., California, 1925
Carlson, Robert — Portland, Ore. — Educ. gr. — 544 Encina
A.B., Stanford, 1931
Carlton, Ainsley Maxwell — San Mateo — Germ. gr. — 315 Georgetown,SM-sm
A.B., California, 1930; A.M., Stanford, 1931
[5]Carmichael, Annie Lou — Santa Rosa — Psych. gr. — 366 Roble-*2586*
A.B., Stanford, 1930
[234]Caro, Maurice M. — Phoenix, Ariz. — Econ. 90·77+34 — 234 Union-*1101*
Carpenter, Clarence Ray — Cherryville,N.C. — Psych. gr. — Union-*1993*
A.B., Duke, 1928
[12]Carpenter, Harry Lee, Jr. — Richmond — LD 24–26 — 123 Toyon-*585*
Carpenter, Hazen Clair — Palo Alto — Engl. gr. — 1932 Bryant, P-p
A.B., Wisconsin, 1929; A.M., Stanford, 1931
Carpenter, Howard L. — Santa Paula — Med. gr. — 230 Central, SF-sf
A.B., Stanford, 1928
Carr, Arthur Marsh — San Jose — Educ. gr. — 436 W.San Frndo.,SJ-sj
A.B., San Jose State Teachers College, 1930
Carr, Gilbert Lawrence — Santa Monica — Hist. 180+270 — 237 Toyon-*2784*
A.B., Stanford, 1931
[4]Carrithers,Margaret Lois — Stanford Univ. — Pol.S. gr. — 151 Roble-*2238*
A.B., Stanford, 1929
[1]Carroll, Francis Bernard — San Jose — Law gr. — 539 Encina-*508*
A.B., Stanford, 1928, LL.B., 1931
[3]Carroll, Frank Emmet, Jr. — San Francisco — Soc.S.58·122+96 — 367 16thAv.,SF-sf
A.B., Stanford, 1931
Carruth, Katharine — Palo Alto — LD 19·30–20 — 246 Roble-*2104*
[4]Carruthers, Fanny Gaddis — San Jose — Educ. gr. — 1095 Chapman, SJ-sj
A.B., California, 1914, A.M., 1917
[5]Carson, Jean Frances — Berkeley — LD 89+65 — Pi Beta Phi-*1918*
Carson, John Fulton — Spokane, Wash. — LD 24·47+85 — 358 Encina-*1791*

Carstensen, Christian Achtrup, Germany Math. 135·45+24 301 Union-*1238*
A.B., Stanford, 1931
[4]Carter, Aurabelle Snyder Selma S.Biol. gr. *226* Roble
A.B., Fresno State College, 1930
[124]Carter, Conwell Brooks Phoenix, Ariz. Bot. 45·119+12 529 Channing, P-p
[4]Carter, Earl Kendall Hanover, N.H. Fr. 135· 648 Alvarado
Carter, Frederick Butler Pasadena Econ. 180+9 Zeta Psi-*B*
A.B., Stanford, 1931
Carter, Irval Wayne Porterville Math. gr. 307 Union-*2677*
A.B., Stanford, 1930, A.M., 1931
Carter, Nelson Ira Los Angeles Pol.S. gr. Alpha Delta Phi-*J*
A.B., Stanford, 1930, A.M., 1931
[1]Carter, Oliver Jesse Redding Pol.S. 83–28 249 Toyon-*2488*
[5]Cartlidge, Catherine Louise Oakland Engl. 138+30 370 Roble
[124]Cartwright, Theodore Carl Pasadena Hist. 105+16 Sig. Alpha Eps.-*1306*
Carver, Howard Alan San Francisco Pre-Med. 90·30+27 Kingscote
Cary, J. Alison San Francisco Med. gr. 45 Santa Paula, SF-sf
A.B., Stanford, 1921
Cary, William Sayre San Francisco Med. gr. 45 Santa Paula, SF-sf
A.B., Stanford, 1922
[13]Case, Donald Lathrop Los Gatos Econ. 185+169 Sig. Al. Eps.-*1305*
A.B., Stanford, 1931
Case, Robert Bowen Oakland Pre-Med. 90·45+30 404 Sequoia-*36*
[12]Case, Robert Cutler San Francisco Econ.46·69–17 Al.KappaLam.-*658*
Case, Roscoe David Duncombe, Iowa S.Bus. gr. 531 Hawthorne, P-*993*
A.B., Denver, 1922, A.M., 1923; Ed.D., Stanford, 1931
[4]Casler, Gerald Vaughn Indianola, Neb. Educ. gr. 645 Gilman, P-p
A.B., Peru State Teachers College, 1926
Cass, Alonzo Beecher Fresno Pre-Cl. 12·251+156 Perry, P-*1102*
A.B., Stanford, 1931
[4]Cassel, John David Palo Alto Zoöl. gr. Pacific Grove-pg
A.B., Stanford, 1930
[23]Casselberry,William Sturgeon Palo Alto Educ. gr. 940 Scott, P-*2704*
A.B., California, 1916; A.M., Stanford, 1929
[4]Cassina, Flora Petaluma LD‡ 167 Roble-*585*
Castberg, Harold T. San Francisco Pre-Med. 143+19 Kappa Alpha
Cathcart, Arthur James Palo Alto Econ. 182+8 Theta Delta Chi-*1828*
A.B., Stanford, 1931
[13]Cathcart, Wallace Daniel Palo Alto Econ. gr. 1215 Emerson, P-p
A.B., Stanford, 1927, J.D., 1930
Catlin, Harry Stockwell Palo Alto Econ. 130+44 800 Hamilton, P-p
Catterall, John Leslie Vancouver, B.C. Cl.Lit. gr. 948 Ramona, P-p
A.B., British Columbia, 1926
[5]Cavalero, Philip Stockton Law gr. 525 Encina-*2027*
A.B., Stanford, 1928
[1]Cavitt, Marion Clark Palo Alto Econ. 87+30 530 Webster, P-p
[4]Cesaratto, Reno Romolo Dunsmuir LD 475 Forest, P-p
[234]Chadwick, George Charles,Jr. Palo Alto Econ. 74+20 536 Linden, P-p
Chaffee, John Gilbert Long Beach Econ.-Ac.90·48+18 715Bryant,P-p
[5]Chai, Feng Yang Hupeh, China Pol.S. 90·75–4 213 Emerson, P-*34*
Chain, Hubert Victor Stockton LD 97+104 Theta Xi
Challman, Robert C. Minneapolis, Minn. Psych. gr. 610 Cowper, P-p
A.B., Minnesota, 1927, A.M., 1929
[4]Chalmers, Lora Henningsen San Jose Educ. gr. 344 S. 9th, SJ-sj
A.B., San Jose State Teachers College, 1928
[4]Chamberlain, Virginia Beverly Hills LD *260* Roble-*2541*
Chamberlin, Joe Webb San Francisco LD 49+12 359 Encina

[231]Chambers, Jack Valentine Sacramento Bact. gr. 176 Bryant, P-p
A.B., Stanford, 1930
Chambers, Richard Harvey Tucson, Ariz. Law gr. 345 Forest, P-p
A.B., Arizona, 1929
[12]Champlin, Herschel Everett Bakersfield Soc.S. 90·24+10 434 Encina
[23]Chan, Shau Hong Canton, China Pol.S. gr. Chinese Club-*1047*
A.B., Lingnan, 1928; A.M., Stanford, 1930
Chan, Shau Wing Canton, China Engl. gr. 1235 Powell, SF-sf
A.B., Lingnan, 1927
[12]Chandler, Dorothy Maud Berkeley Soc.S. 152+159 265 Roble-*847*
Chandler, Walter Edward Santa Ana Econ. 90·91+30 231 Branner-*1052*
A.B., Stanford, 1931
[14]Chaney, George Edward San Jose Educ. gr. 50 S. 17th, SJ-sj
A.B., San Jose State Teachers College, 1930
[4]Chaney, Gladys Waller San Carlos LD‡ 1015 Elm, SC-Box 582, sc
[134]Chang, Francis Y. Kwei-Chow, China Educ. gr. 245 Ramona, P-p
A.B., Stanford, 1930
[5]Chang, Hui Wen China Pol.S. gr. 635 Bryant, P-*2547*
A.B., Stanford, 1930, A.M., 1930
[5]Chang, Yin Lin Peking, China Phil. gr. Chinese Club-*1952*
A.B., Stanford, 1931
Chapin, Almon Joel Oberlin, Ohio S.Engr. 87·46+30 205 Sequoia-*980*
Chapin, Leland T. Stanford Univ. Law gr. 8 Union-*711*
A.B., Willamette, 1925
Chapman, Evelyn B. Surf Med. gr. 3376 Clay, SF-sf
A.B., Stanford, 1930
[1]Chapman, Richard Stephens Santa Barbara Law gr. 228 Fulton, P-p
B.S., Pennsylvania, 1927
Chase, Emily Ball Piedmont LD 49+43 236 Roble-*1893*
[1]Chatham, William, Jr. San Francisco Econ. 5·178+51 211 Toyon-*2364*
A.B., Stanford, 1931
[13]Chen, En Cheng Kaying, China Pol.S. gr. Chinese Club-*1279*
A.B., Fuh Tan University, 1930
Cheng, Yee Fung Ningpo, China Phys. gr. 942 Ramona, P-p
B.S., National Southeastern University, 1925
[12]Cheo, Yuan-Chen Kiukiang, China Pol.S. gr. 316 Union-*1157*
A.B., San Jose State Teachers College, 1928; A.M., Stanford, 1929
[4]Cherrie, Dorothy May San Jose Educ. gr. 855 N. 2d, SJ-sj
A.B., San Jose State Teachers College, 1927
Cherry, Clifford Burns Rialto Pre-Clin. 90·99+61 1612 Cal., P-*535*
A.B., Stanford, 1931
[5]Chestnut, Louis Carrol Colfax, Wash. Law gr. 428 Forest, P-p
B.S., State College of Washington, 1928
[12]Cheung, Kon Chow Chun Keng, China Econ. gr. Chinese Club-*54*
A.B., Lingnan, 1930
[12]Chickering, Robert P. Oakland LD 59–7 Delta Tau Delta-*1363*
Chijiwa, Saikichi Fukuoka-Ken, Japan Econ. 135·56+10 OakGrove, MP-mp
Chillson, Charles White Redwood City Chem. 5·180+88 219 Ramona, P-p
A.B., Stanford, 1931
[5]Chin, Shuyung Canton, China Educ. gr. 245 Ramona, P-*1934*
A.B., Stanford, 1931
[13]Choate, James Virgil Ada, Okla. LD 33–18 Sigma Chi
Chope, Harold DeLos Richmond Med. gr. Stanford Hosp., SF-sf
A.B., Stanford, 1926
Chowjing, Jack Gee Edmonton, Alta. LD 42·82+9 Chinese Club-*563*
[4]Christal, George Granville San Francisco Econ.‡ 557 Lasuen
[1]Christensen, Kenneth Chester Palo Alto Econ. 186+130 Sigma Nu-*1385*
A.B., Stanford, 1931
Christiansen, Ernest Martin Palo Alto Educ.gr. 453 Princeton, P(Sta.A)p
A.B., Washington Missionary College, 1919; A.M., Stanford, 1931

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|---|---|---|---|
| [234]Church, John Alexander | Palo Alto | Econ.135·35+19 | 801 Middlefield, P-p |
| Churchill, Ambrose Sevier<br>A.B., Stanford, 1931 | Beverly Hills | Pre-Clin. 191+150 | Theta Chi-*1383* |
| Churchill, E. Perry<br>A.B., Stanford, 1930 | Santa Paula | Law gr. | 42 Woodland, P-p |
| Churchill, Robert Busey | San Diego | LD 20·89+79 | Phi Kappa Sigma |
| [5]Clagett, Frederic | Kellogg, Idaho | LD 45+36 | 305 Encina-*1554* |
| [1]Clancey, Thomas Ross | Brooklyn, N.Y. | Cl.Lit. 135· | 305 Lytton, P-p |
| [1]Clapp, Arthur Davis<br>A.B., Stanford, 1931 | Berkeley | Econ. 48·133+14 | Phi Kappa Sigma |
| Clapp, Austin Rhone | Hollywood | Psych. 127+46 | Phi Delta Theta |
| Clark, Austin Marshall<br>A.B., Redlands, 1930 | Redlands | Med. gr. | 215 Cowper, P-p |
| Clark, Beckwith Burnham | Live Oak | Bact. 90·43+16 | 1001 Cowper, P-p |
| Clark, Fred A., Jr.<br>A.B., Redlands, 1928 | Redlands | Med.gr. | 2321 Sacramento, SF-sf |
| Clark, Jean Maddock | Phoenix, Ariz. | S.Biol. 90·38–1 | 174 Roble-*2053* |
| [1]Clark, John Charles<br>A.B., Ohio Wesleyan, 1925 | Shelby, Ohio | Phys. gr. | 205 Union-*1011* |
| Clark, Maurice Marcy | Live Oak | Phys. 90·42–9 | 1001 Cowper, P-p |
| [5]Clark, Ned | Ojai | S.Eng.90·123+58 | Sig.Al.Eps.-*1305* |
| [23]Clark, Robert Jenkins | Los Angeles | LD 25–11 | 326 Encina-*682* |
| [4]Clark, Robert T., Jr.<br>A.B., Vanderbilt, 1927, A.M., 1928 | Nashville, Tenn. | Germ. gr. | 628 Gilman, P-p |
| Clark, Ruth Marie | Claremont | LD45·93+32 | Gamma Phi Beta-*1337* |
| Clark, Scott | Hutchinson, Kans. | LD 39+11 | 232 Encina-*1575* |
| Clark, Warren H.<br>A.B., Stanford, 1931 | Fairbanks, Alaska | M.E. gr. | 1130 Webster, P-p |
| [1]Clark, William Nunan<br>A.B., Stanford, 1931 | San Francisco | Pol.S. 180+22 | Phi Delta Theta |
| Clarke, Edwin Hubbell<br>A.B., Stanford, 1931 | Hollywood | Econ. 96·84+6 | 410 Sequoia-*2516* |
| Clarke, Elizabeth Mar<br>A.B., Stanford, 1931 | San Francisco | Engl. 181+57 | Delta Gamma-*1366* |
| [14]Clarke, Lawrence Hamilton | San Francisco | LD sp. 43–19 | Firehouse-*1183* |
| [4]Clarke, Oliver French<br>A.B., Stanford, 1930 | Myrtle Point, Ore. | Educ. gr. | 644 Channing, P-p |
| Clarke, Robert Edward<br>A.B., Stanford, 1930 | Oakland | S.Bus. gr. | Sigma Nu-*1385* |
| [5]Clarke, Robert Montgomery<br>A.B., Stanford, 1930 | Los Angeles | Engl. gr. | Kingscote-*B* |
| Clarke, Rosemary Fravel | San Jose | LD 46·45+53 | 206 Roble-*827* |
| Clarke, Samuel Tracy | Honolulu, T.H. | LD91+140 | Alpha Tau Omega-*1384* |
| [4]Clarke, Susan | Los Angeles | LD | 258 Roble-*2542* |
| Clausen, Radcliffe Charles<br>A.B., Stanford, 1931 | Los Angeles | S.Engr.5·194+215 | 242 Toyon-*2813* |
| [3]Clawson, Charles Wellington | Oxnard | LD 46+34 | 208 Sequoia |
| Clay, Robert Jack<br>A.B., Stanford, 1931 | Stockton | Pol.S. 100·80+20 | 203 Union-*2733* |
| Cleary, Joseph Patrick<br>A.B., Stanford, 1931 | Butte, Mont. | Bact. 98·95+110 | 443 Kipling, P-p |
| Clegg, Harding | Palo Alto | LD 41+9 | 51 Crescent, P-p |
| [4]Cleveland, Austin Carl<br>A.B., Phillips, 1917, B.S., 1922; A.M., Chicago, 1924 | Wichita, Kans. | Educ. gr. | 551 Hanover, P(Sta.A)p |
| Clinard, Marshall Barron | San Diego | Soc.S. 97·50+51 | 435 Encina-*627* |
| [12]Cline, Carl Atherton | San Francisco | LD 26–7 | 106 Encina-*1463* |
| [12]Cline, Claude Walter<br>A.B., Stanford, 1931 | Prescott, Ariz. | Econ. 22·159+53 | Staller Ct., P |

Clinite, William Donaldson Burlingame LD 29+17 1021 Laguna, B-b
Clough, Frank, Jr. Kansas City, Mo. Econ. 136–1 Beta Theta Pi-*1335*
Clough, Frederick Stansbury San Diego Pre-Med. 90·46–1 Beta Theta Phi
[4]Clumpner, Guy Alfred Moxee City, Wash. Educ. gr. 204 Toyon-*1258*
A.B., Michigan, 1921; A.M., Washington State, 1927
[4]Cluphf, Maud Mae San Diego Span. gr. 281 Roble
A.B., Colorado, 1918
Clyde, Mollie Brooke Santa Barbara Engl. 93·55+63 282 Roble-*1405*
Clyne, Beatrice Virginia Redwood City Hist.6·132+57 535Brewster,RC-rc
Clyne, James Wallis Redwood City LD 84+10 535 Brewster, RC-rc
[12]Coale, George William Sacramento Econ. 90·25–18 225 Toyon-*642*
[5]Coats, Edwin Frederick Oakland Econ. 176–12 Alpha Sig. Phi-*1357*
Cobb, Earle Morgan Fresno Econ.-Acct.90·95+49 319Un.-*1002*
A.B., Stanford, 1931
Coberly, Charles Wheeler Los Angeles LD 49+21 316 Encina-*1691*
[134]Cochrane, Edward C. New London, Wis. Soc.S.-Jn.135·30+23 227Seq.-*512*
[12]Cockins, Robert Goold Santa Monica LD 38–3 122 Encina-*1013*
Coe, A. Lee Salem, Ore. LD 3·42+12 228 Sequoia-*2763*
[22]Coe, Henry Sutcliffe San Jose Econ.-Acct. gr. 15 Kingscote
A.B., Stanford, 1929
Coe, Lela Blanche Palo Alto LD 49+37 1202 Fulton, P-p
Coelho, Louis Joseph Fresno Law gr. Cardinal Ct. Apt., P-p
B.S., California, 1926
Coffen, Charles W. Portland, Ore. S.Biol. 139+68 Carmel-c
[2]Coffman, Clifford Merle Montebello Soc.S. ‡ 55–21 804 Bryant, P-p
[4]Cohen, Ernest Philip Butte, Mont. Pre-Med. 30·40–4 521 Lasuen-*714*
Cohen, Milton M., Jr. Los Angeles Law gr. 542 Encina-*12*
A.B., Stanford, 1929
Cohen, Ruth L. Berkhamsted, England Food Res. gr. Madroño-*2544*
Graduate, Newnham, 1929
Cohn, David Warren Portland, Ore. Pol.S. 90·37+8 105 Sequoia-*2038*
Cohn, Julian Maxwell San Francisco Med. gr. 2105 Buchanan, SF-sf
A.B., California, 1928
Cohn, Roy Barnett Los Angeles Med. gr. 2321 Sacramento, SF-sf
A.B., Stanford, 1929
Coil, Charles Antioch Pol.S. 119+39 307 Sequoia-*1673*
Coin, Raymond Seymour SaltLakeCity, U. Bact. 135·28–10 555 Waverley, P-p
Coit, Charles Winn, Jr. Short Hills, N.J. Engl.-P.Sp. 140+26 245 Toy.-*1468*
[5]Coker, Harold Tracy Palo Alto Hist. gr. 222 Fulton, P-Bx. 138, p
A.B., Wabash, 1925; A.M., Washington, 1928
Colberg, Florence Kathryn Stockton Educ. gr. Delta Delta Delta-*1325*
A.B., Stanford, 1931
[234]Colburn, Harry L. Turlock Ed.-G.A. gr. 405 Sequoia-*2172*
A.B., Stanford, 1929
Colburn, J. Reynard Pomona Pre-Clin.90·97+104 244Toy.-*1855*
A.B., Stanford, 1931
Colburn, Wayne Neuhardt Turlock Hist. 90·99+63 204 Sequoia-*2172*
A.B., Stanford, 1931
[5]Cole, Gaines Greene Champaign, Ill. Soc.S. 91·49+13 650 San Juan-*1363*
[1]Cole, Henry Clay Champaign, Ill. Law gr. PA-RFD 1, Bx. 409, p
A.B., Stanford, 1929
[4]Cole, John Gordon San Francisco LD ‡ 215 Toyon
Cole, William Essuk Boise, Idaho LD 40+4 321 Encina-*903*
[124]Coleman, Hugh Calderwood San Jose Educ. gr. 1576 Hedding, SJ-sj
A.B., San Jose State Teachers College, 1929
[23]Coleman, John Joseph, Jr. San Francisco Engl. gr. 3018 Jackson, SF-sf
A.B., St. Ignatius, 1929

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|---|---|---|---|
| [4]Coles, Clara | Covina | LD | 248 Roble-*2047* |
| Coles, Edwin | Covina | Math. 139+56 | Theta Xi |
| Coles, Otis Calvin, Jr. A.B., Stanford, 1931 | El Paso, Tex. | Econ.90·91+22 | 774SantaYnez-*581* |
| [4]Collett, Cyril Harold A.B., Hillsdale, 1927 | McCloud | Educ. gr. | 853 Middlefield, P-p |
| Collie,William J. | Salt Lake City, Utah | Pre-Med.141+98 | Del.TauDel.-*1363* |
| Collier, Donald | Mill Valley | LD 95+90 | 139 Toyon-*1972* |
| Collins, Barbara Drew | Fresno | LD 86+65 | Delta Gamma-*1366* |
| [12]Collins, George Walker | Palo Alto | Econ. 90·31–19 | 1105 Lincoln, P-p |
| Collins, Keith Ball | Palo Alto | LD 82+72 | 1105 Lincoln, P-p |
| [4]Collins, Leonard Franklin A.B., Southern California, 1922; A.M., California, 1926 | Chino | Educ. gr. | 320 Union |
| Collis, W. H. Langley A.B., College of the Pacific, 1926 | San Jose | Med. gr. | 2315 Sacramento, SF-sf |
| Collonge, Louis Leonard | Los Gatos | Chem. 90·50+27 | 428 Encina |
| Colman, Philip Abbey | San Francisco | LD 45+30 | 324 Encina-*805* |
| [1]Colt, Henry | La Jolla | LD 54–23 | 106 Branner |
| [5]Colton, Virginia Gillette A.B., Santa Barbara State Teachers College, 1930 | San Luis Obispo | Hist. gr. | 935 Ramona, P-p |
| Colvin, Donald Longstreet | Oakland | Pol.S. 168+37 | Phi Gamma Delta |
| [234]Colvin, Jacinth | Binford, N.D. | S.Biol. 170+84 | 305 Roble-*1773* |
| [1]Colwell, Lewis William | Chicago, Ill. | Educ. gr. | 845 S. 11th, SJ-sj |
| Combellack, Frederick M. A.B., Stanford, 1928 | San Francisco | Cl.Lit. gr. | 506 Encina-*3035* |
| [234]Comerford, John P. A.B., Chico State Teachers College, 1931 | Los Angeles | Educ. gr. | 535 Salvatierra-*2284* |
| [1]Comfort, William Jabez A.B., Stanford, 1931 | Stockton | S.Engr. 185+101 | 302 Toyon-*1206* |
| Commins, William Dollard A.B., St. Joseph's, 1921; A.M., Catholic University of America, 1922; Ph.D., Stanford, 1931 | St. Louis, Mo. | Psych. gr. | 535 Cowper, P-p |
| Compton, Robert Hayes | Oroville | S.Engr. 90·45–8 | 433 Encina-*1472* |
| Comrie,William Alexander | Portland,Ore. | LD 46+0 | 410 Encina-*1230* |
| [34]Condon, Edna Dean A.B., Oregon, 1929 | Stanford Univ. | Educ. gr. | 534 Channing, P-p |
| Conger, Clyde Benson A.B., Stanford, 1931 | Sacramento | Pre-Clin.90·96+103 | 209Bran.-*2665* |
| [5]Conkle, Byron Hawkins A.B., Mt. Union, 1913; A.M., Stanford, 1930 | Palo Alto | Educ. gr. | 216 Fulton, P-p |
| [4]Conley, Charles Clarence Ph.B., Chicago, 1915; A.M., Stanford, 1929 | Marana, Ariz. | Educ. gr. | 115 Alma, P |
| Conn, Howard James | Fresno | Phil. 46·91+137 | 313 Toyon-*2363* |
| [12]Connable,HoracePeck A.B., Stanford, 1931 | Kalamazoo,Mich. | Soc.S.135·48+46 | 400Mil.Rd.-*2034* |
| Connell, Collier | Hollywood | Soc.S.-Jn.90·45+8 | 177Roble-*2282* |
| Conner, William W. A.B., Stanford, 1927, A.M., 1931 | Modoc, Indiana | Chem. gr. | 514 Alvarado-*2138* |
| [1]Conover, Arthur James | Sacramento | S.Biol. 90·43–15 | 140 Branner-*684* |
| [4]Converse, Edmund C., Jr. A.B., Stanford, 1928 | Menlo Park | Law gr. | Menlo Park-*1013* |
| [23]Conway, Merritt Frank A.B., Stanford, 1931 | Los Angeles | Econ. 98·83+21 | 563 Encina-*1723* |
| Cook, Albert | San Francisco | LD 46+34 | 359 Encina |
| Cook, David Erving | Pasadena | LD 117–10 | Kappa Alpha |
| Cook, Dorothy Frances | Palo Alto | Pol.S.47·97+85 | 2305Emerson,P-p |
| Cook, Joseph Rudolph A.B., Stanford, 1931 | San Jose | Econ. 180+42 | 240 Branner-*2668* |

[1]Cook, Lyle Edwin — Palo Alto — Law gr. — 327 Emerson, P-p
A.B., Stanford, 1929
[12]Cook, Ralph Williams — Los Angeles — LD 80–25 — Kappa Sigma-*1326*
Cook, Richard Crothers — Stockton — M.E. gr. — Sigma Nu-*1385*
A.B., Stanford, 1930
[4]Cooke, Edwin David — Los Angeles — Chem. gr. — 241 Toyon
A.B., California, 1921; A.M., Southern California, 1928
[1]Cooke, Frederick James — San Francisco — Econ.14·167+109 — Al.Kap.Lam.-*658*
A.B., Stanford, 1931
[23]Cool, Forrest — Seattle, Wash. — Law gr. — 275 Hamilton, P-p
A.B., Northwestern, 1911; LL.B., Washington, 1930
[4]Cool, Mary Anita — Portland, Ore. — Educ. gr. — 171 Roble
A.B., Oregon, 1926
Coombs, Donald S. — Los Angeles — S.Engr. 164+8 — 213 Toyon-*1294*
Coombs, James Cornell — Sacramento — S.Engr.90·44+10 — 206Sequoia-*2213*
Coonradt, Frederic C. — New York, N.Y. — LD 45+34 — 335 Encina-*1521*
[1]Coons, John Calvin — Woodland — S.Engr. 90·93+14 — 27 Encina, P-*196*
A.B., Stanford, 1931
[12]Coons, Norman Dickson — Woodland — Econ.‡30–10 — 27EncinaAve.,P-*196*
[4]Cooper, Alice Cecilia — Modesto — Educ.gr. — 1429Blvue,Burlingame-b
A.B., Stanford, 1907, A.M., 1908
Cooper, Charles Edward — Los Altos — Econ. 180+41 — Burke, LA-*658*
A.B., Stanford, 1931
[12]Cooper, Elizabeth Stuart — San Francisco — Engl. 180+269 — Kap. Alpha Theta
A.B., Stanford, 1931
[1]Cooper, Frederick William — Yuba City — Educ. gr. — 536 Middlefield, P-p
B.S., California, 1928
Cooper, Grosvenor W. — Stanford Univ. — Cl.Lit.117+204 — Al.Kap.Lam.-*658*
Cooper, John Adams — Denver, Colo. — S.Bus. gr. — 443 Kipling, P-p
A.B., Dartmouth, 1930
Cooper, Tom Richardson — Reno, Nev. — Econ. 180+38 — Zeta Psi-*B*
A.B., Stanford, 1931
Cooper, Walter Johnston — Los Angeles — Econ. 143+162 — Delta Upsilon
Cooperrider, Kenneth Albert — Arcata — Engl. 90·92+86 — 402Sequoia-*1236*
A.B., Stanford, 1931
[4]Coover, Calvin Clay — Stanford Univ. — LD ‡ — 535 Salvatierra-*648*
Cor,Laurence William — Black Eagle,Mont. — LD 92+21 — 139 Branner-*541*
[4]Corbella, Theodore Matthews — St. Helena — LD — 213 Toyon
[4]Corbet, Arlie Beatrice — Mountain View — Educ. gr. — 268 Homestead, MV-mv
A.B., San Jose State Teachers College, 1928
Corbin, Kendall Brooks — Los Angeles — Pre-Clin. 135·51+78 — 215 Cpr, P-p
A.B., Stanford, 1931
Corbus, William — Vallejo — LD 91+59 — Phi Delta Theta
[12]Cordry, E. Vernon — Hayward — Soc.S.-Jn. gr. — MP-*1372*
A.B., Stanford, 1930
Cordry, Thomas Wallace — Hayward — LD 92+36 — 139 Toyon-*1372*
Cornell, Guy Bennett — Fresno — S.Engr. 112·50+37 — 545 Bryant, P-p
[12]Cornell, Jack Leonard — Los Angeles — LD 20·62+53 — Phi Kappa Sigma
Cornell, James Payne — Sunnyvale — Chem. 181+123 — 262 Murphy, S-s
A.B., Stanford, 1931
Cornell, Willis Allison — Fresno — E.E. gr. — 545 Bryant, P-p
A.B., Stanford, 1931
[4]Cornforth, Ruth — Miami, Ariz. — LD ‡ — 217 Roble
Corum, William Thomas — Napa — S.Engr. 138+130 — 308 Branner-*1497*
Coughlin, Joseph Leo — San Francisco — LD 80+4 — Delta Kappa Epsilon
[4]Coulson, Edwin Ray — Santa Monica — Engl.gr. — 714 Santa Ynez-*598*
A.B., California at Los Angeles, 1926; A.M., Southern California, 1929

[1]Coulter, Robert Isham — S. Pasadena — Law gr. — 232 Union-*2582*
B.S., California Institute of Technology, 1928; LL.B., Stanford, 1931
[1]Count, Earl Wendel — San Jose — S.Biol. gr. — 98 S. 13th, SJ-sj
A.B., Williams, 1922
Cousins, George Raynal — Monrovia,Liberia — Econ. 180+116 — 406 Sequoia-*2701*
A.B., Stanford, 1931
[1]Cowan, James Wilson — Bakersfield — LD 91–28 — Theta Xi
Cox, Hudson Baynham — Kobe, Japan — Econ. 95·47+83 — 128 Kingsley, P-p
[4]Cox, Lee — San Martin — Educ. gr. — 550 S. 6th, SJ-sj
A.B., San Jose State Teachers College, 1931
Cox, Lowell M. — Palo Alto — Soc.S.-Jn. 90·48+37 — 1012 High,P-p
Cox, Mark Thomas — Cheyenne, Wyo. — Econ.123+68 — ThetaDeltaChi-*1828*
Cox, Wilbur Brent — San Jose — Econ. 90·90+8 — 96 Fox, SJ-sj
A.B., Stanford, 1931
[4]Crabb, Paul Ellsworth — Healdsburg — Educ. gr. — 411 E. S. Clara, SJ-sj
A.B., Stanford, 1926
Crable, Francis Robert — Prescott, Ariz. — LD 95+128 — 119 Toyon-*1214*
Crabtree, David M., Jr. — San Francisco — S.Engr. 185+70 — 620 Wav., P-*2104*
A.B., Stanford, 1931
[1]Craig, John Charles — Porterville — Pre-Med. 136+102 — 123 Toyon-*2641*
[12]Craig, Joseph Allen — Palo Alto — S.Biol. gr. — 769 Bryant, P-p
A.B., Stanford, 1923, A.M., 1931
[4]Craig, M. Leola — Portland, Ore. — Math. gr. — 159 Kellogg, P-p
A.B., Oregon, 1925
Craig, Walter Early — Phoenix, Ariz. — Econ. 180+10 — Phi Gamma Delta
A.B., Stanford, 1931
Cramer, Harold Davidson — Campbell — Med. gr. — 2321 Sacramento, SF-sf
A.B., Stanford, 1930
Cramer, Jerome Paul — San Francisco — S.Engr. 130+84 — Al. Kap. Lam.-*658*
[12]Crandall, Geo. F. — PortWashington,N.Y. — LD 76–20 — 138 Branner-*2107*
Cranston, John Montgomery — Escondido — Law gr. — 318 Union-*2787*
A.B., Stanford, 1929
[134]Crary, Catherine — Palo Alto — LD 16·118+69 — Kap. Kap. Gamma
[23]Crary, Mary Anne — Woodside — LD 30+8 — 115 Roble-*947*
[4]Cravens, Mary R. — Sacramento — Zoöl. gr. — Pacific Grove-pg
A.B., Stanford, 1904, A.M., 1905
Crawford, Bryce Low, Jr. — Palo Alto — LD 49+88 — 1119 Webster, P-p
[4]Crawford, Charles R. — Los Angeles — LD — 317 Ramona, P-p
Crawford,Charles William — Santa Barbara — S.Engr.30·99+12 — AlphaDeltaPhi-*J*
Crawford, Loyal Calvin — Beverly Hills — S.Engr. 151+67 — 216 Branner-*1122*
Crawford, Stewart Adams — San Francisco — LD 95+58 — Phi Gamma Delta
Crayne, Lawrence Edmund — Lemoore — LD sp. 38–15 — 427 Webster, P-p
[5]Creedon, Robert William — Pasadena — Soc.S.90·42+25 — M.School,M P-*899*
[134]Creighton, Robert Edwin — Phoenix,Ariz. — Soc.S.-Jn. 45·75+3 — Delta Chi-*1304*
[4]Crenshaw, Grace Denison — Hollywood — Pol.S. ‡ — Roble-*1248*
[4]Creveling, Viola Ruth — Cascade, Mont. — Educ. gr. — 500 Middlefield, P-p
A.B., Montana, 1927
Crever, James Willis, Jr. — San Jose — Med. gr. — 2180 Wash., SF-sf
A.B., Stanford, 1930
Criley, Richard Laurence — Carmel — LD 44+64 — 222 Encina-*2488*
[12]Crisler, Lewis Allen — Los Angeles — Soc.S. 111–15 — Kingscote
Crismon, Jefferson M. — Los Angeles — S.Biol. 190+213 — 121 Toyon-*1264*
A.B., Stanford, 1931
Crocker, Herbert Arthur — San Francisco — Engl. 108+90 — 138 Toyon
[5]Crofoot, Gladys L. — Oakland — Engl.-P.Sp.163+104 — Al.O.Pi.-*1367*
Crofoot, Michael — Omaha, Neb. — LD 90+84 — Sigma Al. Epsilon-*1305*

[4]Crofts, Alfred — Menlo Park — Engl. gr. — Menlo Jr. Coll., MP-mp
A.B., Wheaton, 1924; A.M., Chicago, 1930

Cronin, James Daniel — Palo Alto — Hist. gr. — 745 Waverley, P-p
D.D., Università della Propaganda Fede (Rome), 1927

Cronkite, Alfred Eugene — Los Angeles — LD 47-49+72 — 317 Encina-*1424*

[4]Crooks, William Ramsden — Ahwahnee — LD — 116 Toyon-*1767*

Crookshank, Eleanor — Santa Ana — Psych. 131-49+38 — 274 Roble-*832*
A.B., Stanford, 1931

[23]Cross, Dorothy Embry — Palo Alto — Econ.-Soc. gr. — 1005 Univ., P-p
A.B., Vassar, 1913; A.M., Stanford, 1931

Cross, Henry Settle, Jr. — Redlands — Soc.S. 137+69 — 250 Toyon

Cross, Ira Brown, Jr. — Berkeley — LD 44–11 — 249 Encina-*1623*

[23]Crow, Elizabeth Madison — Burlingame — LD 31+44 — 311 Roble-*63*

Crow, Wayne William — Palo Alto — Educ. gr. — 347 Alma, P-p
A.B., Willamette, 1927; A.M., Stanford, 1931

Crowell, Georgia Anna — Hollywood — LD 45-33+44 — Pi Beta Phi-*1918*

[4]Crowley, Thomas Banon — San Francisco — LD — 242 Toyon-*642*

[1]Cruess, William Vere — Berkeley — Chem. gr. — 1466 Scenic, B-b
B.S., California, 1911; Ph.D., Stanford, 1931

[12]Cruikshank, Donald B. — Montpelier, Ida. — S.Bus. gr. — 250 Cowper, P-p
B.S., Utah Agricultural, 1930

Cubbison, Rose — Stanford Univ. — LD 44+37 — 162 Roble

[5]Culver, Benjamin F. — Palo Alto — Soc.S.-Soc.90-74+84 — 460Amst,P

[4]Cummings, Frank Lorenzo — Chico — Educ. gr. — 205 Emerson, P
A.B., Chicago, 1904, A.M., 1911

Cummings, Harold R. — San Francisco — Med. gr. — 2180 Washington, SF-sf
A.B., Stanford, 1929

[234]Cummings, Lloyd Franklin — Palo Alto — Econ.-Acct.144+156 — 1230Ful,P-p

[5]Cummings, Marie Elizabeth — Palo Alto — S.Biol. gr. — 1230 Fulton, P-p
A.B., Stanford, 1931

[1]Cunan, Louis Raymond — Richmond — S.Engr. 94-90+29 — 948 Ramona, P-p
A.B., Stanford, 1931

[1]Cunningham, Joseph Lyle — Palo Alto — Pol.S. 96-84+57 — 534 Guinda, P-p
A.B., Stanford, 1931

[23]Curley, Robert Edward — Menlo Heights — Math. gr. — Menlo Heights-*2474*
Ph.B., Chicago, 1925

[4]Curran, Ben Otto — Aberdeen, Wash. — Educ. gr. — 337 Waverley, P-p
A.B., Washington State, 1924

[4]Curran, Margaret Craig — Tacoma, Wash. — Educ. gr. — Madroño
B.S., Columbia, 1918

[4]Currie, Alex B. — Edmonton, Alta. — Psych. gr. — 426 Florence, P-p
B.Com., Queen's University, 1929

Curtis, Franklin Tracy — Spokane, Wash. — LD 44+1 — 23 Encina-*2007*

Curtner, Albert Howard — San Jose — LD 84+8 — Phi Gamma Delta

[124]Custer, Howard Clifton — Los Angeles — Engl.-P.Sp. 113+25 — 314 Seq.-*2483*

[234]Cuthbertson, Lulu Lee — Pueblo, Colo. — Fr. gr. — Orange, Los Altos-la
A.B., Colorado, 1912

Cutshaw, Charles McLaren — Brawley — Pre-Med. 90-66+34 — Kap. Sig.-*1326*

Cutter, Daniel Charles — San Francisco — S.Engr.5-187+197 — Al.Sig.Phi-*866*
A.B., Stanford, 1931

Cutter, Richard Deidrich — Palo Alto — Med. gr. — 627 Webster, P-p
A.B., Stanford, 1930

Cutting, Cecil Cooper — Campbell — Pre-Clin. 90-95+105 — 256 Toyon
A.B., Stanford, 1931

Cutting, Windsor C. — Campbell — Med. gr. — 2321 Sacramento, SF-sf
A.B., Stanford, 1928

[4]Cypher, S. Clark — Palo Alto — Law gr. — 1560 Cowper, P-p
A.B., Stanford, 1927

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|---|---|---|---|
| Czerniski, Fred Julian | Glendale | LD 44–8 | 127 Encina-*511* |
| [12]Dachtler, Charles Vincent, Jr. | Pasadena | Econ. 88·77–1 | 561 Encina-*1752* |
| Dahl, Arthur Ludwig | Burlingame | LD 45+32 | 228 Encina-*525* |
| Dahlgren, Dorothy Bernice<br>A.B., Stanford, 1931 | Fresno | Hist. 90·92+100 | Sigma Kappa-*1327* |
| Dake, Leland Edmund<br>A.B., Stanford, 1931 | San Francisco | Econ. 180+153 | Kappa Sigma-*1326* |
| [4]Dale, Frederick Harold<br>A.B., San Jose State Teachers College, 1928 | Red Bluff | Zoöl. gr. | Pacific Grove-pg |
| Dales, John, Jr.<br>A.B., Stanford, 1929 | Los Angeles | Law gr. | Delta Tau Delta-*1363* |
| [1]Dalton, Swanton Dorse<br>A.B., Stanford, 1931 | Beverly Hills | Chem. 181+86 | Kappa Sigma-*1326* |
| [1]von Damm, Helena | Burlingame | Econ. 164+44 | Sigma Kappa-*1327* |
| [4]Damsgard, Lincoln C.<br>A.B., Union, 1913 | Pasadena | Math. gr. | Stanford Univ. |
| Dana, Charles Harrold | Decoto | LD 92+78 | 218 Sequoia-*15* |
| [12]Danford, Roy Edwin | San Francisco | LD 63–11 | Alpha Sigma Phi |
| Daniel, John, Jr.<br>A.B., Stanford, 1931 | San Francisco | C.E. gr. | Phi Gamma Delta |
| Daniel, Wilbur Elsworth<br>A.B., College of Puget Sound, 1923; A.M., Stanford, 1931 | Buckley, Wash. | Educ. gr. | 1680 College, P-p |
| [5]Daniels, Albert C.<br>A.B., Stanford, 1929 | San Francisco | Anat. gr. | 2321 Sacramento, SF-sf |
| [4]D'Anna, Joseph Aurelius<br>A.B., San Jose State Teachers College, 1928 | Watsonville | Educ. gr. | 492 Bird, SJ-sj |
| Danoff, Hyman Oscar | Los Angeles | Soc.S. 90·47+29 | 425 Encina-*2562* |
| [5]Daugherty, Anita Elizabeth | Pasadena | Zoöl. 88+69 | 371 Roble |
| [23]Daugherty, Lyman Harry<br>A.B., Stanford, 1924, A.M., 1925 | San Jose | Bot. gr. | 311B S. 6th, SJ-sj |
| Daugherty, Virginia Marie | Palo Alto | Engl. 15·135–3 | Delta Gamma-*1366* |
| [12]Davenport, John Colver | Aberdeen, Wash. | S.Engr. 90·23–16 | 536 Alvarado |
| Davens, Edward John | Santa Barbara | Hist. 90·50+38 | 694 Alvarado |
| David, Harold William | San Francisco | Econ. 140+78 | 142 Toyon-*3013* |
| David, James Carleton | San Jose | S.Engr. 90·45+23 | 232Branner-*1331* |
| [4]David, Marguerite | Chemawa, Ore. | Engl. 147·14+3 | 209 Kipling, P-p |
| Davidson, Elizabeth Nicoll | Santa Barbara | Hist. 139+209 | Kap. Kap. Gamma |
| Davidson, James Robin | Edmonton, Alta. | Educ. 69·91+65 | 444 Encina-*3037* |
| [12]Davidson, Janet Chapman | Menlo Park | LD 85+17 | Menlo Park-*506* |
| [4]Davidson, Marion | Stockton | LD ‡ | 404 Cowper, P-p |
| [4]Davis, Alan Morgan | Portland, Ore. | LD ‡ | 250 Toyon-*968* |
| [4]Davis, Albert Mott<br>A.B., Colorado, 1926 | Boulder, Colo. | Educ. gr. | 208 Oak, P-p |
| Davis, Burt Lincoln, Jr.<br>A.B., Stanford, 1929 | Palo Alto | Pre-Med. gr. | Carmel-c |
| [4]Davis, Chester Verner<br>B.S., Utah Agricultural, 1930 | Ruth, Nev. | Educ. gr. | 520 Cowper, P-p |
| [4]Davis, David | Freeport, N.Y. | LD ‡ | 250 Toyon |
| [1]Davis, Don Passmore | Long Beach | Econ. 109+21 | Phi Kappa Psi |
| Davis, Francis Ellsworth<br>A.B., Stanford, 1931 | Seville | Pol.S. 180+134 | 218 Branner-*2753* |
| Davis, Fred J., Jr.<br>A.B., Stanford, 1929 | Westwood | Med. gr. | 2180 Washington, SF-sf |
| Davis, George Elton<br>A.B., Cornell, 1919; A.M., Rochester, 1929 | Rochester, N.Y. | Phys. gr. | 727 Cowper, P-p |
| Davis, Gilbert James<br>A.B., Chico State Teachers College, 1930 | Nevada City | Educ. gr. | 634 Hamilton, P-*893* |

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| Davis, Henry Floyd<br>B.S., Utah Agricultural, 1930 | Mesa, Arizona | S.Bus. gr. | 1121 Bryant, P-p |
| [5]Davis, Joseph Harold | San Francisco | Phys.S. 94+107 | 403 Encina |
| [234]Davis, Marvin Carter<br>A.B., Missouri, 1930 | Sheldon, Mo. | Bact. gr. | 1004 Emerson, P-p |
| Davis, Nelson Beaumont | Los Angeles | Econ. 140+69 | 215 Sequoia-*1149* |
| [4]Davis, Paul Sprague<br>A.B., Harvard, 1930 | Chicago, Ill. | Law gr. | 141 Toyon-*2583* |
| Davis, Roland Chenoweth | Santa Ana | Soc.S. 134+66 | Kappa Alpha |
| [12]Davis, Spencer Edward | Los Angeles | Econ. 125+82 | Sigma Nu-*1385* |
| Davis, Stanley Spencer<br>A.B., Stanford, 1928 | Westwood | Med. gr. | 2180 Washington, SF-sf |
| [23]Dawless, Smith | Pasadena | LD 67·9–28 | 106 Encina-*844* |
| Dawley, Donald Eugene<br>A.B., California at Los Angeles, 1929 | Los Angeles | Law gr. | Theta Xi |
| Dawson, Ray Elmer | Santa Ana | Hist. 148+34 | Sigma Nu |
| Day, Harriet Ring<br>A.B., Stanford, 1931 | San Francisco | Econ. 183+169 | Al. Omi. Pi-*1367* |
| Day, Roscoe Arthur | Oakland | LD 85–13 | 657 Cowper, P-p |
| [13]Dayton, John Gordon<br>A.B., Stanford, 1930 | Long Beach | Chem. gr. | 580 Oxford, P-*1256* |
| Deacon, Bernard Wilson | Los Angeles | LD 49·32–23 | 224 Encina |
| Deahl, John L., Jr.<br>A.B., Stanford, 1931 | San Francisco | Pol.S. 180+12 | Phi Kappa Sigma |
| [5]Deahl, Katharine<br>A.B., Stanford, 1931 | San Francisco | Psych. gr. | Gamma Phi Beta-*1337* |
| Deakers, Roderick Paul<br>A.B., Stanford, 1928 | Los Angeles | Med. gr. | 2136 California, SF-sf |
| Dear, Elaine Marguerite | Alhambra | LD 47+21 | 102 Roble-*596* |
| [4]Dearborn, Frances Jane<br>A.B., Stanford, 1926 | Santa Barbara | Engl. gr. | 1144 Fulton, P-p |
| Dearborn, Robert Leland | Fairfield | LD 83–11 | Delta Tau Delta-*1363* |
| Dearborn, Terry Hamilton | Blythe | Econ. 137+2 | 510 Encina-*2611* |
| Deck, John, Jr. | Santa Monica | Pre-Md.53·109+14 | Th.D.Chi-*1828* |
| Decker, Richard Warren<br>A.B., Stanford, 1931 | Oakland | Soc.S. 5·175+30 | 242 Toyon-*573* |
| Decker, Thomas Ray | Oakland | Econ. 133+5 | Delta Upsilon |
| De Domenico, Victor A. | San Francisco | LD 78+83 | Toyon |
| De Groot, Edward B., Jr. | Sierra Madre | Hist. 5·142+77 | Phi Delta Theta |
| vanDeinse, Francina C. | Pasadena | Hist. 110+18 | Delta Gamma-*1366* |
| [4]Delamarter, Frank A.<br>A.B., College of the Pacific, 1926 | San Jose | Cl.Lit. gr. | 221 S. Morrison, SJ-sj |
| De Laney, Colton Griffith<br>A.B., Stanford, 1931 | Porterville | Chem. 84·105+43 | 138 Branner-*618* |
| Delmas, Bert Charles | San Francisco | LD 89+36 | Kappa Sigma-*1326* |
| [1]De Lucchi, Joseph Dominic | San Francisco | Pre-Med.132–17 | 214Branner-*2665* |
| Demaree, Delzie<br>A.B., Indiana, 1914; S.M., Chicago, 1921 | Benham, Indiana | Bot. gr. | Stanford Hotel, P |
| [23]De Mattei, Elmer Michael | San Jose | Hist.95·33+20 | 1460Sh'rtr'dg,SJ-sj |
| DeMille, Charles Richard<br>A.B., Stanford, 1931 | Seattle, Wash. | Soc.S. 135·47+12 | 680 Forest, P-p |
| De Motte, Theodore Mitchell<br>A.B., Stanford, 1931 | Ukiah | Soc.S.-Jn.186+295 | 304Bran'r-*2665* |
| Denicke, Ernest Webber | Ross | LD 48+79 | 330 Encina-*1516* |
| [4]Denlay, Raymond Emery<br>A.B., Chico State Teachers College, 1930 | Chico | Educ. gr. | 211 Toyon |
| Denney, Albert Lord<br>A.B., Stanford, 1931 | Los Angeles | Pol.S. 15·172+124 | 415 Encina |

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| [4]Dennis, William Albert<br>A.B., Redlands, 1929 | Bakersfield | Math. gr. | 521 Lasuen-*2253* |
| Dermer, Albert Henry | Fresno | LD 38–2 | 137 Encina-*1737* |
| [4]DePaquette, Helena Kelley<br>A.B., Arizona, 1913 | Gonzales | Span. gr. | 628 Webster, P-p |
| [4]Derby, James Daniel | Beverly Hills | LD | 142 Toyon-*2281* |
| [4]Derbyshire, Lucile | Santa Barbara | Educ. ‡ 9–2 | 175 Roble |
| [4]Dermody, George Steele<br>A.B., San Jose State Teachers College, 1928 | Los Altos | Educ. gr. | Los Altos-Bx. 54, la |
| Desenberg, Jane Norton | Pasadena | LD 48·46+45 | 256 Roble-*1484* |
| Desjardins, Ulise Joseph | Coral Gables, Fla. | Econ. 141+12 | Boathouse-*2814* |
| De Smet, Delbert Henry<br>A.B., Stanford, 1930 | San Jose | Med. gr. | 2180 Washington, SF-sf |
| Desmond, Walter Joseph, Jr.<br>A.B., Harvard, 1930 | Long Beach | Law gr. | 1009 High, P-p |
| Detert, Gunther Richard | San Francisco | LD 89+26 | Alpha Kappa Lambda |
| [23]Detrick, Dana Farrington | Palo Alto | LD 61·25–14 | 1027 Waverley, P-p |
| Deuel, John Bockée | Santa Barbara | Econ. 137–3 | Sigma Nu-*1385* |
| [4]Devery, Frank Edward<br>B.S., Idaho, 1928 | Reubens, Ida. | Educ. gr. | 565 Hamilton, P-p |
| [4]Devincenzi, Joseph Louis | Los Altos | LD | East Tyndall, LA-la |
| [4]Devine, Ralph Anthony<br>A.B., Stanford, 1930 | San Francisco | Econ. gr. | 650 San Juan |
| [1]Devlin, Berchmann Rapp<br>A.B., Stanford, 1931 | San Francisco | Econ. 185+44 | Phi Delta Theta |
| Devlin, Leo John, Jr.<br>A.B., Stanford, 1931 | San Francisco | M.E. gr. | Phi Delta Theta |
| De Vore, Albert Reginald<br>A.B., Stanford, 1931 | El Centro | Soc.S.-Jn. 87·93+26 | 307 Union-*84* |
| [4]De Wees, Benjamin Laban<br>A.B., De Pauw, 1922 | Turlock | Soc.S. gr. | 335 Union |
| [2]DeWees, John Wilbur<br>A.B., De Pauw, 1930 | Hartford City, Ind. | Zoöl. gr. | Mayfield Tourist Cp, P |
| [2]Dewhirst, Homer Lynn | Champaign, Ill. | LD | 317 Ramona, P-p |
| [5]DeWit, Jacqueline W. | Los Angeles | LD 46+13 | 109 Roble-*1240* |
| [1]Dexter, Gregory George<br>A.B., Stanford, 1931 | Hillsborough | Soc.S. 90·119+25 | 444 Encina-*626* |
| Dey, Dorothy | Greenwich, Conn. | LD 84+0 | Alpha Phi-*1387* |
| Díaz, J. Thomas<br>A.B., Stanford, 1931 | Cuzco, Peru | Pre-Cl. 4·185+204 | 329 Hwthrn, p |
| [14]Dick, Robert Lewis | Portland, Ore. | Econ. 106·15+0 | 536 Alvarado |
| Dickenson, Richard Wagner | Stockton | Hist. 133+187 | 115 Toyon-*1008* |
| Dickey, David Bonnell | Donna, Texas | Soc.S. 136+222 | 1535 Coll., P-*1884* |
| Dickinson, Mary Esther | Havre, Mont. | Engl. 91·47+36 | 269 Roble |
| [23]Dickson, Hal Anderson<br>A.B., Stanford, 1931 | Portland, Ore. | Econ. 180+41 | 236 Branner-*571* |
| Dienstein, William<br>A.B., Stanford, 1931 | Taft | Soc.S. 186+106 | 246 Toyon-*2407* |
| Dietrich, Frank Sigel<br>A.B., Stanford, 1930 | Boise, Idaho | Med. gr. | 2180 Washington, SF-sf |
| Dietrich, Stephen Mann<br>A.B., Stanford, 1930 | Stockton | Law gr. | 238 Toyon-*2668* |
| Dietz, Frederick Curt | Oakland | Chem. 125+40 | 321 Sequoia |
| [5]Dill, William Abbott<br>A.B., Stanford, 1930 | San Mateo | Zoöl. gr. | Pacific Grove-pg |
| [4]Dillenburg, Rose<br>A.B., Stanford, 1930 | Marysville | Span. gr. | 600 Arguello, RC-rc |

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| Dillon, Edward Thomas<br>A.B., Stanford, 1930 | Los Angeles | Law gr. | Delta Kappa Epsilon |
| [4]Di Maria, Joseph Frank | Palo Alto | LD ‡ | PA-Route 1, Box 668, p |
| [4]Di Maria, Rose Anne | Palo Alto | LD ‡ | PA-Route 1, Box 668, p |
| Dimmitt, Beulah | Los Angeles | LD 10·51+74 | 107 Roble-*2392* |
| [4]Dinsmore, Naomi Louisa<br>A.B., Colorado State Teachers College, 1920, A.M., 1921 | Flagstaff, Ariz. | Educ. gr. | 947 Waverlev, P-p |
| Dinsmore, Robert Laird<br>A.B., Stanford, 1930 | Oroville | Chem. gr. | 625 Hamilton, P-p |
| Dixon, Harry S.<br>A.B., Stanford, 1931 | Knights Landing | S.Engr. 183+97 | 249 Branner-*1492* |
| Dixon, Philip Raymond, Jr. | Oakland | Econ. 133–1 | Kappa Sigma-*1326* |
| [12]Doak, Dan Alvin | Page, Idaho | LD 22–20 | 736 Coronado-*2217* |
| [12]Doane, Donald Calvin<br>A.B., Stanford, 1931 | Stanford Univ. | Econ. 182+9 | 762 Dolores |
| Doane, Phyllis Schuyler | Pasadena | LD 44+37 | 211 Roble-*2344* |
| [5]Dockweiler, Frederick C. | Los Angeles | Econ. 94·36+15 | 275 Hamilton, P-p |
| Dodds, Ellamae | Superior, Neb. | LD 47+72 | 260 Roble-*1033* |
| Dodge, Charles Hopkins | Ojai | LD 47+26 | 328 Encina-*2817* |
| Dodge, C. Phelps, Jr.<br>Ph.B., Yale, 1929 | ColoradoSpgs.,Colo. | Law gr. | 465 Lowell, P-p |
| Dodington, Sven Henry | San Francisco | LD 44–7 | 39 Encina-*1050* |
| [2]Dodson, Lawrence Edgar | Palo Alto | LD 33–48 | 187 Bryant, P-p |
| [4]Doebler, Rotha Gray<br>A.B., Stanford, 1925 | Los Angeles | Educ. gr. | Madroño |
| Dohrmann, Emilie B. | San Francisco | LD 98+120 | Kappa Kappa Gamma |
| [12]Dohrmann, George W., Jr. | Stockton | Econ. 142+42 | Delta Upsilon |
| Dohrmann, Louise J.<br>A.B., Stanford, 1931 | San Francisco | Germ. 187+226 | Kappa Kappa Gam. |
| Dolbey, James Morton | Cincinnati, Ohio | Econ. 87·49+21 | 234 Branner-*2462* |
| Dole, Richard A. | Honolulu, T.H. | Econ. 162+47 | Phi Sig. Kappa-*538* |
| Dole, Wilfred H. | Hoquiam, Wash. | S.Engr. 131+23 | Theta Chi-*1383* |
| Doleman, Edward | Modesto | Chem. 90·46+82 | 218 Sequoia |
| Dolfini, Walter William<br>A.B., Stanford, 1931 | Eureka | Zoöl. 94·96+38 | Pacific Grove-pg |
| Domoto, Kaneji | Oakland | LD 92+57 | Japanese Club-*598* |
| [23]Domoto, Wakako | Oakland | LD 93+74 | 382 Roble-*1454* |
| Donahue, John | San Jose | S.Engr.90·46+15 | 266Gifford,SJ-sj |
| [4]Donohue, Leroy Francis | Sharon, Pa. | Chem. ‡ | 152 Tasso-P-p |
| Donatelli, Victor Edmund<br>A.B., Occidental, 1930 | Los Angeles | Law gr. | 587 Alvarado-*882* |
| [134]Donkin, Forrest Willard | Modesto | Soc.S.-Jn.90·67+9 | 528Laurel,P-p |
| [4]Donlon, James Damian, Jr. | Antioch | LD | 133 Toyon |
| Donlon, Pete Albert | Antioch | Educ. 100+57 | Phi Delta Theta |
| Donnell, Mary Orrilla | Los Angeles | LD 88+76 | 167 Roble-*1916* |
| Donner, Ludwig | Pasadena | S.Engr. 96·75+14 | 323 Lytton, P-p |
| [4]Doolittle, Dorothy Isabel<br>A.B., Pomona, 1925 | San Bernardino | Educ. gr. | Roble-*2173* |
| [4]Doolittle, Ruth Moore<br>A.B., Santa Barbara State Teachers College, 1927 | Santa Barbara | Ed.-G.A. gr. | Roble |
| Dorchak, Alex | Belt, Montana | Chem. 132+36 | 228 Sequoia |
| Dorety, Lawrence Gerber<br>A.B., Minnesota, 1930 | St. Paul, Minn. | Law gr. | 325 Alma, P-p |
| Dorgeloh, Justin Redman | San Francisco | LD 97+147 | 403 Encina |
| [4]Dorland, Warren D. | San Diego | Soc.S.-Jn. ‡ | 132 Toyon-*1735* |
| Dorman, Raphael M. | Santa Fe, N.Mex. | Hist. 144+49 | Phi Gamma Delta |

Dorman, Vroman James — Parlier — Law gr. — 147 Birch, RC-rc
A.B., Southern California, 1929
[124]Dorn, Conrad L. — Kelseyville — Geol. 10·143+40 — 257 Toyon-*1290*
[12]Dorn, Lewis Robert — Kelseyville — Econ. 110–14 — 249 Toyon-*2488*
Doub, William Kelsey — Berkeley — Econ. 143+57 — Phi Kappa Psi
[5]Doudoroff, Michael — Palo Alto — Zoöl. 96+114 — 554 Hawthorne, P-p
Dougherty, Harry Morgan — Long Beach — Pol.S. 93·46–11 — Sigma Chi
[1]Dougherty, William E. — Medford, Ore. — LD 16+11 — 141 Encina-*2028*
Doughty, Frances Winton — San Mateo — Math. 88·46+43 — 380 Roble-*1312*
Doughty, Grace Marcia — San Mateo — Math. 93·44+42 — 378 Roble-*1312*
Douglas, Asa Vanderpool — Stanford Univ. — Pol.S. 77·111+0 — Sig. A. Eps.-*1305*
A.B., Stanford, 1931
[23]Douglass, Don Minor — San Francisco — LD 42+7 — 32 Kingscote
[124]Dow, Wallace Allen — Palo Alto — Econ. 93·86–19 — 1753 Cowper, P-p
Dowell, Virgil C. — Lindsay — Law gr. — 215 Encina-Phi Kap. Psi
A.B., Stanford, 1930
[12]Downing, Helen — Norman, Okla. — Soc.S. 24·157+172 — Kappa Kappa G.
A.B., Stanford, 1931
Downs, George French — Tallant, Okla. — S.Engr.105·46+53 — 451Encina-*2196*
[1]Doyle, Eva Gertrude — Santa Ana — Fr. gr. — 660 Salvatierra
A.B., Pomona, 1926; A.M., Stanford, 1931
Doyle, John Joseph — Foxboro, Mass. — Econ.-Soc. gr. — 224 Sequoia-*696*
A.B., Stanford, 1929, A.M., 1931
[12]Drake, Herbert Belding — Mill Valley — Econ. 93·92+147 — 3 Union-*71*
A.B., Stanford, 1931
[4]Dreier, David Collin — Palo Alto — Educ. gr. — 1014 Forest, P-p
Graduate, U.S. Naval Academy, 1925
Dreisbach, Roy Claud — Exeter — Educ. gr. — Y.M.C.A., SJ-sj
A.B., San Jose State Teachers College, 1930
[5]Dresch, Francis William — Sharon, Pa. — Math. 117+145 — 152 Tasso, P-p
Dreyfus, Benjamin Ballinger — San Mateo — Fr. 184+91 — 118 Toyon-*2202*
A.B., Stanford, 1931
[12]Dreyfus, F. Peter — San Mateo — LD 66–18 — 118 Toyon-*2202*
Driscoll, John Lawrason — San Mateo — Law gr. — Delta Kappa Epsilon
A.B., Stanford, 1930
[12]Driscoll, Thomas Albert — San Mateo — Econ. 168–12 — Delta Kappa Epsilon
Druehl, Hugo William — San Francisco — Econ. 141+109 — 128 Branner-*542*
[12]Drury, Marion Overholser — Palo Alto — C.E. gr. — 326 Waverley, P-p
B.S., Otterbein, 1926
[1]Ducker, Edward A., Jr. — Carson City, Nev. — Law gr. — 565 Salvatierra
A.B., Nevada, 1929
[1]Duckett, Harold Leslie, Jr. — Hollywood — Law gr. — Alpha Delta Phi-*J*
A.B., Stanford, 1929
[5]Dudfield, John Jury — Palo Alto — Econ. 61·109+3 — Sigma Nu-*1385*
Dudley, Harry Ward — Ventura — Law gr. — 505 Princeton, P-p
A.B., California at Los Angeles, 1929
[5]Duggan, Wardell S. — Everett, Wash. — LD 41–0 — 349 Encina-*1493*
[3]Duncan, Carl Dudley — Stanford Univ. — Zoöl. gr. — Sand Hill Road-*4*
A.B., Stanford, 1923, A.M., 1928, Ph.D., 1931
Duncan, Sheldon Forbes — Piedmont — Econ. 9·172+63 — Kappa Alpha
A.B., Stanford, 1931
Dundas, Donald Sears — Los Angeles — Law gr. — 538 Alvarado
A.B., Southern California, 1929
[5]Duniway, Ben C. — Stanford Univ. — Law gr. — 539 Encina-*2591*
A.B., Carlton, 1928
[5]Duniway, David Cushing — Northfield, Minn — LD 48·31+36 — 109 Encina-*2591*
Dunlap, George Wesley — Sonora — S.Engr. 184+187 — 129 Emerson, P-p
A.B., Stanford, 1931

Dunlap, Sue Betty — Los Angeles — Soc.S.166+129 — KappaKappaGam.
Dunn, William Edward — Fortuna — Law gr. — 469 Homer, P-p
A.B., Nevada, 1929
Dunning, David Webster — Phoenix, Ariz. — LD 47+40 — 29 Encina-*1551*
[5]Durbin, Robert Alexander — Walnut Grove — Geol. 39·73–27 — 201 Toyon-*2488*
Durbin, William Jennings — Lancing, Tenn. — S.Bus.gr. — PaloAlto-R.1,Bx.624,p
A.B., Tennessee, 1924, A.M., 1925; M.B.A., Stanford, 1931
[13]Durel, Evelyn Frances — St. Louis, Mo. — LD 59+55 — Bayw'd,P-Rt.1,Bx5L,p
[4]Durkee, Robert Thornton — San Francisco — LD — 111 Toyon
Durkee, William Bennett — Santa Barbara — LD 37·68–15 — Kingscote
Dutton, Gayle Roberds — Los Altos — Chem. gr. — Orange, LA-*147*
A.B., Stanford, 1930
Dyer, Hector Monroe — Inglewood — Econ. 182+65 — Delta Kappa Epsilon
[1]Dyer, Richard Ward — Oakland — S.Engr. 102–27 — Th. Del. Chi-*1828*
Eagal, John Henry, Jr. — Stockton — Econ. 90·90+11 — Phi Delta Theta
A.B., Stanford, 1931
[4]Eagan, Harry B. — Phoenix, Ariz. — Educ. gr. — 741 Columbia, P-p
Ph.B., Chicago, 1926
Earl, Orrin Kinsley, Jr. — Altadena — Geol. 186+156 — Phi Gamma Delta
A.B., Stanford, 1931
[7]Earley, Mildred Helen — Great Falls, Mont. — Psych. 105·46+62 — 659 Salvatierra
[1]Easley, Clifford Oscar — San Clemente — Pre-Med. ‡ 13–5 — Woodland, P-p
Eastman, Benjamin Bangs — Woodside — LD 88–38 — Woodside-*J*
[23]Eastman, Frank Creighton — Los Angeles — LD31+6 — MenloParkBx.355c,mp
Eastman, George Lockwood, Jr. — Hollywood — Econ. 180+173 — Alpha Delta Phi-*J*
A.B., Stanford, 1931
[23]Eastman, Samuel Palmer — Woodside — LD48·38–5 — RC-Bx.304A,RD1,rc
[23]Easton, Alice — San Francisco — Pol.S. 102·48+45 — 273 Roble-*966*
Easton, Edward Montague — La Jolla — Econ. 184+117 — Alpha Delta Phi-*J*
A.B., Stanford, 1931
Easton, George W. — San Francisco — LD 82–5 — 136 Toyon-*818*
Eaton, Bourne Goodridge — San Francisco — Phys. gr. — 543 Encina-*1205*
A.B., Stanford, 1929
[5]Eaton, Eleanor — Watsonville — Engl. 106·49+59 — 159 Roble-*1774*
Eaton, Richard Behrens — Redding — LD 48+78 — 230 Encina
[4]Ebel, Bartel Edward — Redlands — Germ. gr. — 521 Lasuen-*1074*
A.B., McPherson, 1909; A.M., Kansas, 1910
Eberhard, Franklin K. — La Grande, Ore. — LD 78+74 — 530 Webster, P-p
[13]Eberhart, George Perrin — Oakland — Econ.-Acct.165+59 — DeltaChi-*1304*
[12]Eberwine, William Edward — Sacramento — S.Engr. 94·40–22 — 108 Sequoia-*975*
[5]Ebey, Ellison Frederick — Berkeley — Econ. 154+101 — 128 Branner-*2668*
Eckart, Harriet Louise — Pasadena — Hist.181+155 — KappaKappaGamma
A.B., Stanford, 1931
[12]Eddie, Charles Park — Los Angeles — Law gr. — 762 Dolores-*1363*
A.B., Stanford, 1930
[23]Eddie, James Law — Los Angeles — LD 16·43–2 — 404 Encina
Edelen, Harold Driscoll — Piedmont — LD 73+78 — Delta Kappa Epsilon
[4]Edgerton, Amelie Francis — Santa Barbara — Soc.S. 135·30+43 — 165 Roble-*2394*
[23]Edmonds, George Willard — Santa Barbara — LD 29–4 — 224 Encina-*945*
Edmonds, Warner, Jr. — Santa Barbara — Pol.S. 180+135 — 113 Encina
A.B., Stanford, 1931
[5]Edwards, Ethel May — Bakersfield — Psych. gr. — 203 Roble
A.B., Stanford, 1931
Edwards, Harry — Santa Rosa — Soc.S.-Jn.90·90+78 — 505Encina-*593*
A.B., Stanford, 1931
Edwards, Martha Frances — San Jose — Engl.138+188 — KappaKappaGamma

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| Edwards, Page Lawrence | Hollywood | LD 106+37 Alpha Delta Phi-*J* |
| [23]Edwards, Raymond Elbert | Hollywood | Pol.S. 40·67+24 Kingscote-*1218* |
| [4]Edwards, Thomas Alban<br>A.B., James Millikin, 1924; A.M., Illinois, 1930 | Cerro Gordo, Ill. | Educ. gr. 469 Harv., P-(Sta.A)p |
| [5]Edwards, Thomas Charles | San Jose | Econ. 85 9 Beta Theta Pi-*1335* |
| Eells, John Shepard, Jr.<br>A.B., Yale, 1928; LL.B., Stanford, 1931 | Ross | Law gr. 558B Forest, P-p |
| [12]Eells, Sarah Lucia<br>A.B., Stanford, 1931 | Ross | Pol.S. 180+83 Kappa Alpha Theta |
| Effron, Leonard L. | San Diego | Pol.S. 5·144+121 *227* Branner-*2557* |
| Egerer, Joel Warne | Aberdeen, Wash. | Engl. 102·43+19 554 Encina-*127* |
| [4]Eggertsen, Claude A.<br>A.B., Brigham Young, 1930 | Springville, Utah | Educ. gr. Kingscote |
| [1]Ehret, Louis David | Sacramento | Econ. 90·57–12 106 Sequoia-*555* |
| [5]Ehrhardt, Raymond | Elk Grove | Econ. 90·47+33 235 Portola-*1061* |
| [13]Ehrhorn, Charles Springer | Balboa | Geol. 16·147+10 Sigma Nu-*1385* |
| Ehrman, Roger Stuart | Menlo Park | Soc.S. 90·44+3 214 Toyon *2665* |
| Ehrman, Thomas Daniel<br>A.B., Stanford, 1931 | Menlo Park | Span. 180+79 121 Toyon-*2665* |
| Eichelberger, Harry Martin | Los Angeles | LD 80+17 Delta Kappa Epsilon |
| Eipper, Elmore William | Aromas | LD 50+46 126 Encina-*1432* |
| Eisner, Helen Frances | San Francisco | LD 79+71 353 Roble-*1355* |
| Eisner, Robert Milton | San Francisco | Econ. 114+10 202 Toyon-*1355* |
| [23]Eisner, Willard David | San Francisco | LD 28+15 449 Encina-*725* |
| Eldred, W. Noel<br>A.B., Stanford, 1931 | Burlingame | S.Engr. 90·94+132 107 Brnr.-*1915* |
| Eldridge, Samuel<br>Engineer, Colorado School of Mines, 1924 | San Francisco | Med. gr. 2136 California, SF-sf |
| Ellingwood, Kendall | Pasadena | LD 43·8 306 Encina-*969* |
| Elliott, E. Merton | Sublette, Kan. | Pol.S. 93·46+6 707 Salvatierra-*676* |
| Elliott, Earl Conarroe, Jr.<br>A.B., De Pauw, 1927 | Hillsborough | S.Bus. gr. 614 Alvarado-*1048* |
| [23]Elliott, Edwin Windsor<br>A.B., Stanford, 1930 | Long Beach | Educ.gr.MenloJuniorColl.,MP-mp |
| [4]Ellis, Brobury Pearce | Oakland | LD 121 Toyon |
| Ellis, Leonard Daniels | San Diego | LD 46+45 225 Encina-*1982* |
| [5]Ellis, Orwyn Haywood | Philadelphia, Pa. | LD 78·41–3 525 Univ. P-*2183* |
| [12]Ellis, William Percival | St. Helena | S.Engr. 134+89 315 Sequoia |
| Ellsworth, Elmer William<br>A.B., Wisconsin, 1929 | Madison, Wis. | Geol. gr. Afton-a |
| Elmer, Anton D.<br>A.B., Stanford, 1929 | Manila, P.I. | Med. gr. St. Francis Hosp., SF-sf |
| Elston, Virginia Jordan | Piedmont | LD 45·39–5 156 Roble-*2765* |
| Elting, John | Billings, Mont. | Zoöl. 116+73 445 Encina |
| Elton, Eunice Virginia | Pasadena | Span. 90·46+61 *229* Roble-*1512* |
| [5]Elwood, A. Wayne | Los Angeles | Pol.S. 136+105 Beta Theta Pi-*1335* |
| Emeis, Calvin Morrison | Los Angeles | LD 46+7 129 Encina-*566* |
| [1]Emig, Elmer Jacob<br>A.B., Central Normal, 1922; A.M., Wisconsin, 1926 | Gainesville, Fla. | Soc.S.-Jn. gr. 1325 College, P-p |
| [23]Enderlin, Harold Cecil | San Francisco | S.Engr.90 30+11 715Bryant,P-*2444* |
| Endert, Joseph Francis, Jr. | Crescent City | LD 48+3 130 Encina-*1467* |
| Endress, Elizabeth Wright | Berkeley | LD 74+20 Kappa Alpha Theta |
| [1]Engberg, Ralph Cornwall | Seattle, Wash. | Pre-Med.97 24+4 303Sequoia *1264* |
| [1]Engeleke, Paul Hans<br>A.B., Stanford, 1927 | Los Gatos | Educ. gr. Montezuma Sch.,LG-lg |
| Engle, Rebecca Jane<br>A.B., Stanford, 1931 | Palo Alto | Psych. 43·138+137 737 Bryant, P-p |

Engleman, Ephraim Philip — San Jose — Pre-Med. 90-32+56 — 78 S. 13th, SJ
English, William Ernest — Oakland — Econ. 5-132–5 — 216 Toyon-*2757*
[5]Engquist, William Harold — Oakland — Econ. 88–10 — Alph Sigma Phi-*1357*
[4]Engs, Eleanor Vernon — San Jose — Germ. gr. — Notre Dame, RC-rc
A.B., Trinity, 1924
Erath, Joseph Anthony — San Francisco — LD 78+47 — 232 Branner-*1981*
[4]Erickson, Alfred Charles — Carnation, Wash. — Educ. gr. — 515 Ruthven, P-p
B.B.A., Washington, 1923
[23]Erlin, Elizabeth — Palo Alto — Engl. (Ind.St.Plan) — 200Clrdge, P-p
[5]Erskine, J. Donald — Birmingham, Mich. — Econ. 124+60 — 533 Encina-*1096*
[5]Erskine, Wilson Fisk — Kodiak, Alaska — LD 41–5 — 351 Portola, P-p
Escher, Earl Winston — Prescott, Ariz. — Med. gr. — 2210 Webster, SF-sf
B.S., Arizona, 1925
[4]Esgate, Neva Madeline — Riverside — Engl.-P.Sp. gr. — 330 Roble
A.B., California at Los Angeles, 1929
[2]Eskin, Vladimir George — Harbin, China — LD 5–18 — 139 Encina-*2124*
Espinosa, José Manuel — Stanford Univ. — Hist. gr. — 632 Foothill-*1555*
A.B., Stanford, 1930, A.M., 1931
[1]Etcheverry, Alfred Starr — Berkeley — LD 62+95 — 611 Waverley, P-*2467*
[23]Euler, Alfred George — San Francisco — Econ. 90-31+3 — Alpha K. Lam.-*658*
[1]Evans, A. Morgan — Santa Monica — LD 13-44+39 — 131 Toyon-*1541*
[134]Evans, Bernerd Clark — Petaluma — Pol.S. 90-46+37 — 540 Encina-*1060*
Evans, Edmund A. — Margaretville, N.Y. — E.E. gr. — 216 Union-*917*
E.E., Rensselaer Polytechnic, 1926
Evans, Edwin Ben — Palo Alto — Pol.S. 89-94+103 — 1020 Calif., P-p
A.B., Stanford, 1931
Evans, George Pirtle — Huntsville, Tex. — Engl. gr. — 745 Homer, P-p
B.S., Vanderbilt, 1917; A.M., Chicago, 1923
[134]Evans, J. Clinton — Twin Falls, Idaho — Educ. gr. — 429 Encina-*2757*
A.B., Stanford, 1931
[13]Evans, Kenneth Russel — Los Angeles — LD 54+7 — Kappa Alpha
[23]Evans, Mariana — Riverside — Psych. gr. — Pi Beta Phi-*1918*
A.B., Stanford, 1930
Everett, Leonard, Jr. — Shanghai, China — S.Engr. 90-85+9 — 213 Union-*2055*
Ewing, Gordon Atkinson — Detroit, Mich. — LD 38+3 — 350 Encina-*1531*
Ewing, Roy Emerson — Mill Valley — S.Engr. 133+45 — Phi Gamma Delta
Eyster, Helen Sue — Royal Oak, Mich. — Soc.S. gr. — 149 Roble-*2795*
A.B., Stanford, 1931
[4]Fackt, Elizabeth Lenore — Denver, Colo. — Pol.S. gr. — Roble
A.B., Washington University, 1912, A.M., 1913; B.S., Simmons College, 1920
Fagerberg, Dixon, Jr. — Prescott, Ariz. — Econ. 182+281 — 611 Wvrly, P-*667*
A.B., Stanford, 1931
Fahlen, Charles Cuthbert — Phoenix, Ariz. — Pre-Med. 90-46+3 — Sigma Chi
Fair, J. Wilbur — San Jose — S.Engr. 182+142 — 229 Branner-*2757*
A.B., Stanford, 1931
Falk, Bessie Harris — Boise, Idaho — Econ. 81-99+99 — 119 Roble-*2452*
A.B., Stanford, 1931
Falk, Karl Leonard — Piedmont — Germ. 144+260 — Delta Chi-*1304*
[4]Falk, Philip Stern — Boise, Ida. — LD — 521 Lasuen-*2452*
[12]Fallaw, Lee McCarrell — Greenville, S.C. — Engl. gr. — 1052 Bryant, P
A.B., Furnham, 1929; A.M., Stanford, 1931
Fallon, Joseph Patrick, Jr. — Atherton — Econ. 158+32 — Th. Delta Chi-*1828*
[12]Farber, Leslie Hillel — Douglas, Ariz. — LD 85+120 — 119 Toyon-*929*
Farrand, Stephen McKevett — Los Angeles — Engl-P.Sp.5-177+67 — 600Fthill-*1971*
A.B., Stanford, 1931
Farrier, George Franklin — San Jose — Hist. 188+33 — 1328 Lincoln, SJ-sj
A.B., Stanford, 1931

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|---|---|---|---|
| [4]Farrow, Mason Lee<br>B.S., Colorado Agricultural, 1929 | Dyke, Colo. | Chem. gr. | 466 Forest, P-p |
| Farwell, Lyndon<br>A.B., Stanford, 1929, M.B.A., 1931 | Los Gatos | S.Bus. gr. | 222 Sequoia-*2112* |
| Fast, Alger Judson | Santa Cruz | LD 42+6 | 234 Encina-*2165* |
| [4]Fast, Emery<br>A.B., Colorado, 1927, A.M., 1929 | Denver, Colo. | Pol.S. gr. | 345 Forest, P-p |
| Faulb, Jared Alexis<br>A.B., Stanford, 1929 | Cleveland, Ohio | S.Bus. gr. | 546 Encina-*731* |
| Faus, Norton Taft<br>A.B., Stanford, 1931 | Salt Lake City, Utah | Econ. 185+72 | Theta Xi |
| [2]Favre, Henry Hartman | San Mateo | LD 53+1 | 932 S. Clrmnt, SM-*561* |
| Fawcett, Vance Wilbur | Hollywood | Econ. 159–12 | Delta Kappa Epsilon |
| [4]Fawcett, Will Mahlon<br>A.B., Stanford, 1922 | Burlingame | Educ. gr. | 1414 Paloma, B-b |
| [4]Fearey, Hiram Day<br>B.S., Illinois, 1929 | Chicago, Ill. | Educ. gr. | 682 Columbia, P-p |
| Feichtmeir, Armand Charles | Wausau, Wis. | S.Engr. 46·72+1 | Sigma Chi |
| Feldheym, Jean Spencer<br>A.B., Stanford, 1931 | San Mateo | Pre-Clin. 188+185 | 224 Union |
| Feldman, Sanford Edward | San Mateo | LD 50+1 | 302 Encina |
| Feliz, George Comte<br>A.B., Stanford, 1930 | Santa Rosa | Law gr. | 319 Sequoia-*2617* |
| Fellows, Frederick D.<br>A.B., Stanford, 1928 | Santa Rosa | Med. gr. | 2200 Hayes, SF-sf |
| Fenton, Frank L.<br>A.B., Stanford, 1923, A.M., 1925 | Santa Rosa | Engl. gr. | 1250 Pine, SF-*1336* |
| [12]Ferguson, Chesley Gould<br>A.B., Stanford, 1931 | Berkeley | S.Engr.18·163+2 | Al.Sig.Phi-*1357* |
| Ferguson, John Bodley | Los Angeles | LD 7·94+139 | Al. K.Lambda-*658* |
| [12]Ferguson, Miriam Claire | Los Angeles | LD 96–2 | Delta Gamma-*1366* |
| [4]Ferguson, Walter V.<br>A.B., Washington, 1925 | Coquille, Ore. | Educ. gr. | 942 Scott, P-p |
| Fernald, Gordon Hildreth | San Bernardino | LD 98+74 | 853 Homer, P-p |
| [4]Ferns, Alice Marion<br>A.B., Mills, 1931 | Burlingame | Span. | 211 Roble |
| Ferns, John Hamilton<br>A.B., Stanford, 1930 | Burlingame | E.E. gr. | 317 Union |
| [12]Fernstrom, John Archie<br>A.B., Stanford, 1931 | Napa | C.E. gr. | 419 Encina-*1306* |
| Ferrino, Louis<br>A.B., Stanford, 1931 | Sacramento | S.Engr. 97·83+4 | 108 Sequoia-*971* |
| Ferry, John Douglass | Rogue River, Ore. | Chem. 150+300 | 313 Sequoia-*2481* |
| [34]Field, Charles Gerald<br>A.B., Stanford, 1928 | Santa Cruz | Educ. gr. | Union |
| [234]Field, Palmer | Alameda | LD 43–18 | 214 Sequoia-*835* |
| [12]Field, Sally Miller<br>A.B., Stanford, 1929, A.M., 1930 | Palo Alto | Phyl.gr. | 167 Rinconada, P-p |
| [4]Fields, Ralph Raymond<br>A.B., Arizona, 1929 | Phoenix, Ariz. | Educ. gr. | 564 Mayfield |
| [5]Filley, Robert Barnard | San Marino | Pol.S. 136+52 | Alpha Tau Omega |
| Finch, Nathan Cochrane<br>A.B., Stanford, 1931 | Glendale | Econ. 180+87 | Delta Upsilon |
| Findley, Gordon Edward | Stanford | Econ. 9·142–5 | Zeta Psi-*B* |
| Fingado, Jack Lankenau<br>A.B., Stanford, 1929, Engineer, 1931 | Sacramento | C.E. gr. | 107 Sequoia-*23* |
| [5]Fisher, Caroline E. | San Francisco | Engl.-P.Sp. 134+9 | 309 Roble-*2232* |
| Fisher, Edward Lincoln | Long Beach | LD 40+18 | 302 Encina-*2042* |
| Fisher, Edwin Young | Santa Paula | LD 93+72 | 1251 Bryant, P-p |

[2]Fisher, Lewis Benedict Portland, Ore. LD 27–50 Stanford Univ.-*556*
Fisher, Robert Light Bellingham, Wash. Pol.S. gr. 214 Toyon-*2337*
A.B., Stanford, 1931
Fisher, Ruth Hubbard Woods, Ill. LD 45-45+0 360 Roble-*1666*
Fiske, James Brooks Triunfo Psych. 129+69 216 Branner-*2271*
[5]Fitting, Ralph Ulf, Jr. Los Angeles Geol. 134+99 104 Branner
[234]Fitzgerald, Enos Jefferis Vallejo Hist. 90-31+33 694 Alvarado
Fitzgerald, James Theodore San Francisco Pre-Med. 102-46+67 408 Seq.-*1160*
Fleck, Herman Stanley Santa Monica Pre-Med. 128–14 Sg. A. Eps.-*1305*
Fleharty, Clarence Roy, Jr. Porterville Pol.S. 90-91+85 233 Union-*2824*
A.B., Stanford, 1931
[1]Fleishhacker, Herbert, Jr. Menlo Park Soc.S. 183+34 Kingscote-*2721*
A.B., Stanford, 1931
Fleming, Bruce Lundie Lahaina, T.H. Econ. 149+41 301 Toyon-*1562*
Fleming, Jessie Edrie Sanger Engl. gr. 641 Gilman, P-*1496*
A.B., Stanford, 1930
[5]Fleming, Paul San Mateo Econ. 75-61+29 324 Sequoia-*2136*
[4]Flesher, Gurnee Allen Salem, Ore. Phys.Ed. gr. 429 Ruthven, P-p
A.B., Willamette, 1929
[1]Fletcher, Ferdinand Thom San Diego LD 65+23 Phi Delta Theta
[1]Fletcher, Thomas Stade Burlingame Econ. 88- 1217 Laguna, B-b
Flickinger, Don Davis Long Beach Med. gr. 2321 Sacramento, SF-sf
A.B., Stanford, 1929
[4]Flint, Virgil P. Huntington Park LD ‡ 2301 Waverley, P-p
Flyer, Harry Los Angeles Med. gr. 2321 Sacramento, SF-sf
A.B., Stanford, 1930
Folda, Engelbert Frank Omaha, Neb. LD 100+90 Phi Gamma Delta
[5]Fonacier, Thomás S. Washington, D.C. Hist. gr. Ramona Hotel, P-*887*
A.B., California, 1922; A.M., Stanford, 1931
[5]Fong, Henry W. Sacramento Econ. 82-98–3 Chinese Club-*11*
Foote, Charles Melville Hastings, Neb. LD 82-42+33 351 Encina-*584*
[12]Foote, Robert Irving San Francisco LD 35–24 121 Encina
Forbes, Robert Palmer Hollywood LD 31–13 322 Encina-*2113*
[23]Forbes, Robert Parsons San Francisco Econ. 130+29 Al. Tau Ome.-*1384*
Force, Eunice Helena Piedmont LD 66+16 Alpha Omi. Pi-*1367*
[4]Ford, Hoyt Abilene, Tex. Educ. gr. 543 Forest, P-*2672*
A.B., Simmons, 1923; A.M., Texas, 1926
[5]Ford, Robert Emmet Glendale Law gr. 1001 Cowper, P-*2638*
A.B., California at Los Angeles, 1930
[1]Forker, Will, Jr. Los Angeles LD 52–17 Alpha Tau Ome.-*1384*
Forney, Burton E. Waterloo, Iowa Educ. gr. 342 Homer, P-p
A.B., Mt. Morris, 1925; A.M., Stanford, 1931
[23]Forney, George Parsons, Kans. S.Engr. 88–8 Delta T. Delta-*1363*
Forster, Albert Edward Los Angeles Law gr. 1342 Middlefield, P-*B*
A.B., Stanford, 1930
Forsyth, Helen Holt Santa Barbara LD 42-44+9 209 Roble-*1636*
[1]Forsythe, Raymond William Woodside LD ‡ Woodside, MP-Bx. 411, mp
Forward, James Dillon, Jr. San Diego LD 89+24 308 Branner-*2368*
Foss, Carlton Henrik Yuba City Chem. 90-49+44 310 Sequoia-*877*
[23]Foss, Gates Perham Douglas, Ariz. Educ. gr. Menlo Jun. Col., MP-mp
A.B., Santa Barbara State Teachers College, 1930
Foss, John H., Jr. Hamakuapoka, T.H. Soc.S. 133+96 16 Branner-*726*
Foster, Bruce E. Colorado Springs, Colo. Phys. gr. 315 Union
A.B., Colorado College, 1927; A.M., Oregon, 1929
[23]Foster, Homer Peter Palo Alto Hist. gr. 815 Stanford, P-p
B.S., State College of Washington, 1914

Fouch, Florence Louisa Maxwell Med. gr. 3845 California, SF-sf
A.B., Stanford, 1928
Fountain, William Edwin Merced LD 94+99 306 Toyon-*2451*
[1]Fowle, John Miller Palo Alto M.E. gr. Hotel President, P-p
A.B., Stanford, 1930
Fowle, Louise Los Altos Psych. 111·71+9 Alpha Phi-*1387*
A.B., Stanford, 1931
[5]Fowler, A. Lee Palo Alto Educ. gr. 453 Princeton, P-p
B.S., Central Missouri State Teachers College, 1923
Fowler, Frederick Hall Palo Alto LD 74–15 Delta Upsilon
[23]Fowler, Harold Dix Taxco, Mexico LD 30+27 246 Encina-*712*
[23]Fowler, Lorne Eugene Rialto Chem. 90·91+79 560 Encina
A.B., Stanford, 1931
[1]Fowler, Wade Charles Palo Alto Educ. gr. 1320 Middlefield, P-p
B.S., Central Missouri State Teachers College, 1921
[12]Fox, Alfred Lewis Los Angeles Bact. gr. 620 Waverley, P-p
A.B., Stanford, 1930
Fox, Charles Marvin San Diego Law gr. Zeta Psi-*B*
A.B., Stanford, 1930
[5]Fox, Denis Llewellyn Berkeley S.Biol. gr. 544 Bowdoin, P-p
A.B., California, 1925
Fox, Norman Clay Cottonwood Pre-Med. 133+67 249 Toyon-*2668*
[5]Fox, Richard J. San Jose Educ. gr. 1136 Lincoln, SJ-sj
A.B., San Jose State Teachers College, 1930
[12]Foyer, Donald Renouf Los Angeles Econ. 63·47+17 565 Slverra-*621*
Franceschi, Andrés, Jr. Yauco, P.R. Med. gr. 2180 Washington, SF-sf
A.B., West Virginia, 1929
Francis, Cyril Chalmers Los Angeles Med. gr. 2136 California, SF-sf
A.B., Stanford, 1928
Francis, James Leonard Yuma, Ariz. LD 46+25 109 Encina-*2301*
[1]Francis, Samuel Augustus San Mateo Math. gr. 464 Midway, SM-sm
A.M., California, 1922
[5]Francisco, Vinard A. San Diego Econ. 135·42+0 1027 Wvrly, P-p
Franich, Anthony John Watsonville LD 92+164 116 Branner-*1734*
[4]Frank, Richard Lewis San Francisco LD 213 Toyon-*871*
[2]Frankel, Martin San Mateo S.Bus. gr. 343 Virginia, SM-sm
A.B., Stanford, 1930
[1]Franklin, John Patterson Palo Alto Econ. gr. 130 Futon, P-p
A.B., Stanford, 1928
[2]Franseen, Charles Edwin San Jose Educ. gr. 715 South 8th, SJ-sj
Graduate, Cheney State Normal, 1921; A.M., Oregon, 1924
Fraser, George Frederick Antioch LD 85–6 Phi Delta Theta
[3]Fraser, Robert McKibben Palo Alto Span. gr. 451 Harvard, P-p
A.B., Stanford, 1927
[4]Frates, Ralph Coryell San Francisco Econ. 90· 521 Lasuen
[1]Frazier, Alfred Egelmann Berkeley Law gr. 506 Encina-*1542*
A.B., Stanford, 1928
[34]Freakes, Marjorie Red Lodge, Mont. Engl. gr. 272 Roble-*1525*
A.B., Washington State, 1925
[14]Fredericks, James B. Los Angeles Law gr. Delta Upsilon
A.B., Stanford, 1931
[5]Fredrickson, Robert Lee San Francisco Law gr. 303 Union
A.B., Stanford, 1929
[4]Freeman, Christopher Alameda Phys.Ed. gr. Breakers Club
A.B., Stanford, 1929
[13]Freeman, F. Kemper Bellevue, Wash. Econ. 113–11 Hotel Pres., P-p
[4]Freeman, Eleanor Burlingame Educ. gr. RedwoodCity-Bx 216,rc
A.B., San Jose State Teachers College, 1931
Freeman, Jack R.B. Los Angeles LD 80–16 Sigma Nu-*1385*
Freeman, John Mathews Portland, Ore. LD 49+8 207 Encina-*2317*

Freeman, Robert Lee — San Francisco — S.Engr. 186+236 — 122 Toyon-*2668*
A.B., Stanford, 1931
Freibrun, J. Louis — Los Angeles — Med. gr. — 2325 Jackson, SF-sf
A.B., California at Los Angeles, 1928
French, Richard Louis — Los Angeles — Bact. 194+158 — Delta T. Delta-*1363*
A.B., Stanford, 1931
French, William Massey — Los Angeles — Soc.S. 5·137+89 — Sigma Nu-*1385*
Frick, Anne Dudley — Woodside — Eng.-P.Sp.180+75 — Kp.Al.Th.-*1708*
A.B., Stanford, 1931
Frick, Donald Jackson, Jr. — Los Angeles — LD 47+23 — 424 Encina-*1995*
Friedlander, Paul — Seattle, Wash. — LD 52+14 — 407 Encina-*2315*
Friedman, Margaret — San Francisco — LD 94+80 — 362 Roble-*2256*
Friendlich, Richard J. — San Francisco — Soc.S.-Jn. 150+125 — 238 Toyon
[12]Fries, Paul Reginald — Palo Alto — LD 21–19 — 360 Forest, P-p
Frisbee, Willis Haseltine — La Jolla — LD 43+15 — 306 Encina-*13*
[5]Frisbie, Howard S. — Pleasanton, Kans. — Econ.-Acct. 90·46–10 — 171 Evrt,P-p
Frost, Benjamin Burt — Los Angeles — Min. gr. — 436 Waverley, P-*1384*
A.B., Stanford, 1930
[23]Frugé, August — The Dalles, Ore. — Fr. 121+146 — 215 Branner-*1613*
Frugoli, Desmo Vincent — San Francisco — Econ. 87·51+15 — 314 Toyon-*2254*
Fry, Hubert Otis — Huntington Park — Pre-Med. 101–5 — Sig.Al.Eps.-*1305*
Fry, John Otis — South Gate — LD 91+76 — Delta Tau Delta-*1363*
[4]Fuhrmann, William A. — Burlingame — Educ. 128·6+6 — 142 Victoria, B-b
Fulkerson, C. Ronald — Ukiah — Pre-Med. 141+148 — 211 Seq.-*1086*
Fullenwider, Frank Irwin — Riverside — LD 90+83 — 209 Branner
[4]Fuller, Lawrence J. — Minden, Nev. — Educ. gr. — 150 Duane, RC-rc
B.S., Nevada, 1927
Fuller, Mort — Lancaster — LD 92+102 — 211 Toyon-*996*
[1]Fuller, Ruth Pierce — Tucson, Ariz. — Fr. gr. — 638 Salvatierra
A.B., Arizona, 1928
Fuller, William Parmer — San Mateo — LD 51·47+22 — 223 Encina-*2426*
Fung, Lung — Sebastopol — Med. gr. — 724 Jackson, SF-sf
A.B., Stanford, 1930
Furst, Eleanor Elizabeth — N.Adams, Mass. — LD 49+71 — 100 Roble-*1794*
[5]Gabbert, Howard Markland — Ventura — Geol. 137+72 — 1270 College, P-p
[4]Gabriel, Martin C. — Seattle, Wash. — LD‡ — 175 Madroño, P-*1795*
Gage, Margaret Esther — Palo Alto — Hist. 137+4 — Delta Gamma-*1366*
Gage, Warren Stanley — Elk Grove — M.E. gr. — 207 Sequoia-*1434*
A.B., Stanford, 1930
[4]Gail, Walter A. — Denver, Colo. — Educ. gr. — 235 Union
B.S., Kansas State Teachers College, 1924; A.M., Colorado State Teachers College, 1929
[4]Galbraith, C. Layton — McGill, Nev. — Educ. gr. — 618 Webster, P-p
B.S., Utah Agricultural, 1928
[12]Galbraith, Donald Bennett — Bakersfield — Pre-Med. 128–7 — 120 Toyon-*2224*
[1]Galbraith, Howard John — Bakersfield — Mil.S. 5·175+18 — 222 Toyon-*2224*
A.B., Stanford, 1931
[23]Galgiani, Jane Veiller — San Francisco — LD 22·29+31 — 214 Roble-*940*
Galgiani, John Veiller — San Francisco — LD 46+46 — 325 Encina-*940*
[5]Galliher, E. Wayne — San Jose — Geol. gr. — Pacific Grove-pg
A.B., Stanford, 1929, A.M., 1931
[5]Galloway, James Crooks — Coalinga — LD 42+7 — 108 Encina-*637*
Gamble, Leonard Charles — Lynwood — Econ. 92·31+6 — 305 Alma, P-p
[1]Gandy, Archie Harry — Whittier — Geol. gr. — 445 Hamilton, P-p
A.B., Occidental, 1930
Gange, John Frederic — Palo Alto — Pol.S.(Ind.Study) — 579Everett,P-p

Gant, Hoyt Raymond — Modesto — Med. gr. — 1935 Webster, SF-sf
A.B., Stanford, 1929
Gantner, John Oscar, Jr. — San Francisco — Econ. 180+110 — Phi Gamma Delta
A.B., Stanford, 1931
Gantner, Vallejo — San Francisco — LD 94+94 — 243 Toyon-*2545*
Garber, Meyer Delott — Hartford, Conn. — Hist.135·45+30 — 241Hawthorne,P-p
A.B., Stanford, 1931
Gardenier, Crane — San Francisco — LD 44+14 — 200 Encina-*1991*
Gardenier, William H. — San Francisco — Pre-Clin. 187+275 — 201 Toyon-*1991*
A.B., Stanford, 1931
Gardner, Clyde Henry — Los Banos — LD 73–1 — 151 Melville, P-p
Gardner, Don G. — San Francisco — LD 48–2 — 137 Encina-*1671*
Gardner, John William — Palo Alto — LD 86+47 — 257 Kingsley, P-p
[34]Gardner, Thomas L. — Redwood City — Span. 143+39 — 1035 Iris, RC-rc
Garibotto, Merven John — Stockton — Law gr. — 532 Encina
A.B., Stanford, 1930
Garnier, Philippe de Canet — Los Angeles — LD 45+25 — 205 Encina-*1406*
[4]Garrett, Homer L. — Baton Rouge, La. — Educ. gr. — 641 Gilman, P-p
A.B., Louisiana, 1914; A.M., Columbia, 1921
Gates, Earl Francis — Santa Maria — Pre-Md.85·83+38 — Al.Kp.Lam.-*658*
[5]Gauld, Charles — Vancouver, Wash. — Hist. 90·50+17 — 760 Univ., P-*112*
Gaw, Emir Allen — Columbus, Ohio — Psych. 135+113 — Pacific Grove-pg
Gay, Thomas Robinson — Alhambra — S.Eng.5·160+14 — The.Del.Chi-*2771*
Gaynor, Edmund Patrick — Oakland — Med. gr. — 465 Moss, Oakland-o
A.B., Stanford, 1930
[12]Geary, Don Van Becker — Mountain View — LD 12–1 — Berry Rd., MV-mv
Geary, Harriet Agnes — Beverly Hills — Soc.S. 181+147 — Alpha Phi-*1387*
A.B., Stanford, 1931
Geddes, Robert Essery — San Diego — Econ. 90·91+48 — 312 Union-*2624*
A.B., Stanford, 1931
[4]Geddes, William Stoddard — Sunnyvale — Educ. gr. — 461 Murphy, S-s
B.S., Utah Agricultural, 1927
Gellermann, William Alan — Tacoma, Wash. — Econ.93·45+25 — 707Salvatierra-*2343*
[23]Genge, Cole Deane — Green Lake, Wis. — Pre-Med. gr. — 210 Toyon
Ph.B., Ripon, 1929
[4]George, Howard Wesley — Cloverdale, Ore. — Educ. gr. — 533 Cornell, P-(Sta.A)p
A.B., Willamette, 1923
George, John R., Jr. — Rock Springs, Wyo. — Educ. gr. — 515 University, P-p
A.B., Linfield, 1926; A.M., Stanford, 1931
[1]George, Paul Oldham — Santa Barbara — Econ. 90·55–25 — 224 Union
Gerbode, Frank Leven A. — Piedmont — Pre-Med. 99·43+69 — 408 Seq.-*1159*
[124]Gerhardt, Edwin Lawrence — Santa Ana — Law gr. — 311 Union-*2791*
A.B., Stanford, 1931
[12]Gerhart, Harold Dwight — Tracy — LD 59+11 — 250 Toyon-*2031*
Gerhart, Leo Ray — Tracy — Econ. 181+115 — 219 Toyon-*2437*
A.B., Stanford, 1931
Gettins, Harry Downing — San Francisco — Pol.S. 90·59–14 — Phi Kappa Sigma
Getts, George Robert — Pasadena — S.Engr. 122·90+4 — 302 Union-*587*
A.B., Stanford, 1931
[3]Gettys, Embry Martin — Decatur, Texas — Hist. gr. — Washington, D.C.
A.B., Baylor, 1914; A.M., Chicago, 1916
[12]Gevurtz, William Sanders — Portland,Ore. — Pol.S. 92·98+78 — 324 Union-*1856*
A.B., Stanford, 1931
[5]Gfeller, Clarence John — Waterloo, Ind. — Educ. gr. — 684 Cimba, P-(Sta.A)p
B.S., Purdue, 1926
Ghiglieri, Louis Lloyd — Stockton — LD 46+68 — 308 Encina-*543*
[23]Ghilotti, Attico Edward — Modesto — Pre-Med. 135·28+20 — 329 Union

Gholson, Richard Weis Waterloo, Iowa LD 41–12 357 Encina-*2146*
[12]Gibbs, Allison Johnson Manila, P.I. Law gr. 522 Homer, P-*1414*
A.B., Stanford, 1928, LL.B., 1931
Gibbs, Barbara Francesca Los Angeles LD 48+56 329 Roble-*1903*
Gibbs, Finley Johnson Manila, P.I. Law gr. 522 Homer, P-*1414*
A.B., Stanford, 1930
[5]Gibbs, Helen M. Sioux Falls, S.D. Engl. gr. Sigma Kappa-*1327*
A.B., Sioux Falls, 1927
Giberson, Augustus Frederic Watsonville Med. gr. 2180 Washington, SF-sf
A.B., Stanford, 1929
Giberson, Ralph Harold Richmond Econ. 131+19 Phi Kappa Psi
Gibson, Beverly Clay Sacramento S.Bus. gr. 313 Sequoia-*2694*
A.B., Stanford, 1929, M.B.A., 1931
Gibson, Mary Constance Palo Alto Span. 22·132+49 804 Forest, P-p
[4]Gibson, Robert Earl Walnut Creek Educ. gr. 306 Union
A.B., Valparaiso, 1919; A.M., Stanford, 1930
Gibson, William Roland Los Angeles Med. gr. 2180 Washington, SF-sf
A.B., California at Los Angeles, 1928
[12]Giese, Arthur Charles Chicago, Ill. S.Biol. gr. 525 Bwdn, P-(Sta.A)p
B.S., Chicago, 1927
Giesecke, Ernst Marble Falls, Tex. Germ. 181+141 344 Serra-*611*
A.B., Stanford, 1931
Giffen, Ralph Royal Sacramento Pol.S. 90·63+24 Phi Sig. Kap.-*538*
Gilbert, Gordon L. Huntington Park Phil. 147+75 Sigma Nu-*1385*
[1]Gilbert, William Isaac, Jr. Los Angeles Law gr. Delta Upsilon
A.B., Stanford, 1928, LL.B., 1931
[5]Gilbert, William Paul Mountain View Hist. gr. 1492 Villa, MV-mv
A.B., Emmanuel Missionary College, 1924
Gilbreath, Robert Irvin Monte Vista, Colo. Econ. 182+48 Al.Tau Omega-*1384*
A.B., Stanford, 1931
[4]Gilbreth, Arlos Lancy Denton, Texas Educ. gr. 1264College,P-(Sta.A)p
B.S., North Texas State Teachers College, 1929
Gilchrist, Franklin W. Great Falls, Mont. LD 49+58 543 Forest, P-p
[5]Gildersleeve, John S., Jr. Ft. Bragg Soc.S.-Jn.133+53 Al.Sig.Phi-*1357*
Gilhuly, Marjorie Louise Glendale Pol.S. gr. Sigma Kappa-*1327*
A.B., California at Los Angeles, 1930
[4]Gilkey, Helen Huberty Sacramento LD‡15+8 Menlo Park
[12]Gill, Lake S. Palo Alto Bot. gr. 550 Forest, P-Box 76, p
A.B., Stanford, 1923
Gillespie, Charles Albert San Francisco LD 46–6 231 Encina-*2148*
[2]Gillespie, Lucy Frain Edwardsville, Ill. Econ. 90·91+51 Gam.PhiBeta-*1337*
A.B., Stanford, 1931
[4]Gillespie, Paul Smith Greeley, Colo. Educ. gr. 202 Union
B.S., Muskingum, 1914; A.M., Colorado, 1929
Gillett, Raymond Earl Hoquiam, Wash. Pre-Clin.8·178+100 ThetaChi-*1383*
A.B., Stanford, 1931
Gillette, Edwin Pasadena LD 87+30 Theta Xi
Gillham, Omer Creighton Los Angeles LD 83+18 Zeta Psi-*B*
Gillig, Gladys San Francisco Hist. 180+263 Kap. Kap. Gamma
A.B., Stanford, 1931
Gillingham, John Rowley, Jr. Berkeley Pol.S. 5·91+29 559 Encina-*1213*
Gilman, Charles Edward, Jr. Berkeley S.Engr. 39·105+75 Theta Xi
Gilman, Philip K., Jr. San Francisco S.Biol. 186+32 Theta Xi
A.B., Stanford, 1931
[4]Gilmer, Daffan Houston, Tex. Law gr. 217 Toyon-*2511*
A.B., Virginia, 1927, A.M., 1929; LL.B., Texas, 1931
[4]Gilmore, Arthur Edwin Pike Chem. 90· 318 Union-*662*
Ginsberg, Julian Los Angeles Phil. gr. 322 Union-*1963*
A.B., California at Los Angeles, 1930

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|---|---|---|---|
| [5]Girvetz, Bertha Wise<br>A.B., Stanford, 1931 | Chico | Fr. gr. | 604 Gilman, P-p |
| Girvetz, Harry Kenneth<br>A.B., Stanford, 1931 | Pasadena | Phil. 180+77 | 604 Gilman, P-p |
| Girzi, Edward Ernest | San Francisco | Econ. 146+84 | 140 Branner |
| Gist, Frederick L.<br>A.B., Stanford, 1931 | San Luis Obispo | Econ. 181+9 | 300 Toyon-*1855* |
| [3]Givan, Charles Vernon<br>A.B., Stanford, 1925 | Sacramento | C.E. gr. | 528 Encina-*1167* |
| [12]Givan, Mary Alverna<br>A.B., Stanford, 1930, A.M., 1931 | Sacramento | Fr. gr. | Delta Gamma-*1366* |
| Glasgow, Charles, Jr. | Long Beach | LD 91+88 | Sigma Nu-*1385* |
| Gledhill, Keith | Santa Barbara | Econ. 45·89+18 | Alpha Delta Phi-*1* |
| Glenn, Sam Merrill | Eureka | LD 60+102 | 305 Encina-*1674* |
| [5]Glover, Fred Ormond | Palo Alto | LD 73+110 | Staller Ct., P-*1363* |
| [12*]Glover, Helen Luciel<br>A.B., Nebraska, 1922 | Ord, Neb. | Math. gr. | 541 Salvatierra-*1744* |
| Glover, Thomas O. | Waco, Texas | LD 65·46+3 | 319 Encina-*2661* |
| [4]Godbald, Norman D., Jr. | Honolulu, T.H. | LD sp. | 521 Lasuen |
| Goddard, Genevieve | Carmel | LD 94+142 | 271 Roble-*504* |
| [4]Goddard, Glenn William<br>A.B., Stanford, 1925 | Palo Alto | Educ.gr. 682 | Columbia,P-(Sta.A)p |
| Godett, Michael Robert<br>A.B., Occidental, 1927 | Los Angeles | Med. gr. 2180 | Washington, SF-sf |
| Godfrey, Marcus Lucius, Jr. | S. Pasadena | LD 92+62 | Phi Delta Theta |
| [4]Godsil, Harry Carr<br>A.B., California, 1926 | Pacific Grove | Zoöl. gr. | Pacific Grove-pg |
| Goelz, Howard Fenner<br>A.B., Stanford, 1931 | Sonora | Econ. 99·81+12 | 541 Encina-*941* |
| Gold, Rubin Leonard<br>B.S., New York, 1929 | San Francisco | Law gr. | 536 Alvarado |
| [34]Goldenberg, I. Marguerita | Chicago, Ill. | Engl.-P.Sp.‡16+2 | 332 Roble |
| [12]Goldie, Edward James<br>A.B., Stanford, 1930 | San Francisco | Law gr. | Kappa Alpha |
| [23]Goldmann, Newton L. | San Francisco | LD 29–4 | 449 Encina |
| Goldsmith, Egbert Erion<br>A.B., Stanford, 1931 | Sacramento | Econ. 184+98 | 252 Toyon-*2668* |
| Goldsmith, Phyllis Seller | San Francisco | LD 46+53 | 239 Roble-*552* |
| Goldsmith, Richard Seller | San Francisco | LD 93+118 | 216 Sequoia-*552* |
| Goldwater, Robert W.<br>A.B., Stanford, 1931 | Phoenix, Ariz. | Econ. 90·91+51 | Sigma Chi |
| [3]Gompertz, John Langdon<br>A.B., California, 1925 | Oakland | Pre-Med. gr. | Pacific Grove-pg |
| [5]Gonzalez, Victor Ibs | San Diego | LD 47–6 | 245 Encina-*35* |
| [2]González, Z. Antonio | San Salvador, C.A. | LD 0–28 | 235 Encina-*43* |
| [4]Good, Roy | Fort Bragg | Educ. gr. | 119 Webster, RC-rc |
| [31]Goodall, William Archie | Long Beach | Econ. 129+8 | 669 Mirada-*538* |
| Gooden, Reginald Heber<br>A.B., Stanford, 1931 | Los Angeles | Span. 180+93 | 1535 College, P-*2668* |
| [1]Goodloe, David Short | Hollywood | LD 15·41–34 | 943 Bryant, P-p |
| Goodloe, Thomas Meade, Jr.<br>A.B., Stanford, 1928 | Hollywood | Min. gr. | 943 Bryant, P |
| [1]Goodman, Janette Carol | Berkeley | LD ‡ | 230 Roble-*2727* |
| Goodrich, Pascal Jack | Los Angeles | LD 50+17 | 46 Encina-*5* |
| [1]Goodson, Harry C. | Colorado Springs, Colo. | Pol.S. 90·15+15 | 222 Fulton, P-p |
| Goodwin, Francis Roy | Boise, Idaho | LD 79–1 | Sigma Alpha Eps.-*1305* |
| Gordon, Artha Dorice<br>A.B., Stanford, 1931 | Redwood City | Germ. gr. | RC-Box 52, rc |

[5]Gordon, Charles Milfred — San Francisco — Econ. 90-78+35 — 241 Toyon-*2668*
[5]Gordon, Jack James — Palo Alto — Chem. 122-48+27 — 144 Byron, P-p
Gordon, John Edward — San Jose — Econ. 90-46+20 — 1436 Sierra, SJ-sj
Gordon, Joseph H., Jr. — Tacoma, Wash. — Soc.S.-Jn. 183+110 — 222Toyon-*1234*
A.B., Stanford, 1931
Gordon, Mackenzie, Jr. — San Francisco — LD 45+37 — 301 Encina-*2006*
[12]Gordon, Robert Dean — San Carlos — Math. 140+149 — 215 Sequoia-*1178*
[23]Gorham, Charles Henry — Morris, Ill. — S.Engr. 5-170+68 — Del.T.Del.-*1363*
[23]Gorham, H. Douglas — Emerald Lake — Econ.183+16 — Emerald Lake,RC-rc
A.B., Stanford, 1931
Goss, Jonathan Carver — Beverly Hills — LD 44+28 — 326 Encina-*82*
[5]Gould, Francis Burnell — Oakland — Soc.S.-Jn. 161+22 — 209 Toyon-*1855*
Gould, Jeannette Lois — Modesto — LD 47+41 — 215 Roble-*1667*
Gould, Richard Bartlett — Ventura — LD 45–1 — 355 Encina-*1931*
Grace, Henry P. — San Francisco — Econ. 139+117 — 138 Toyon
[12]Grace, William H. — Mt. Vernon, Wash. — Soc.S.-Jn. 17-163+82 — Theta Xi
A.B., Stanford, 1931
[1]Graff, Ulrich B. — San Francisco — LD 36–30 — 232 Branner
[4]Graham, Donald Duane — Palo Alto — Educ. gr. — 1121 Bryant, P-p
A.B., San Jose State Teachers College, 1929
[3]Graham, Everett Mervin — San Jose — Chem. gr. — 432 S. 15th, SJ-sj
A.B., San Jose State Teachers College, 1930
Graham, Sydney Joseph — San Diego — Soc.S. 90-49+27 — 559 Encina-*921*
[13]Graham, William Rabe — Pasadena — Pol.S. 120+34 — Delta Upsilon
Grant, Bruce Burnham — Mt. Shasta — LD 81–9 — 237 Branner-*1924*
[1]Grant, Joseph Foster — San Diego — LD 6-77–11 — 301 Toyon-*1785*
Grant, Richard Angus — Los Angeles — Econ. 180+40 — Delta Kappa Epsilon
A.B., Stanford, 1931
[1]Grant, Russell Vantile — San Diego — Bact. gr. — 312 Union
A.B., Stanford, 1930
[12]Grant, Sarah Allis — San Diego — Soc.S. 180+98 — 147 Roble-*1785*
A.B., Stanford, 1931
[1]Grauer, Frederick William — Eburne, B.C. — S.Bus. gr. — 1001 Ramona, P-p
B.S., British Columbia, 1930
Graves, Gordon Raymond — San Jose — LD 42+5 — 15 Encina
[4]Gravestock, Warren Edward — Centerville — Educ. gr. — 526 Central, P-p
A.B., Stanford, 1923
[3]Gray, Howell — McAllister, N.M. — Econ. 89-41–25 — 499 Governors
Gray, Logan — Benicia — LD 44+59 — 107 Encina-*812*
Gray, Nelson — Upland — LD 95+46 — Zeta Psi-*B*
Grebe, Wallace Edward — Costa Mesa — Chem. 90-90+67 — 211 Sequoia-*937*
A.B., Stanford, 1931
Greeley, Molly — Seattle, Wash. — Psych. 91-95+58 — Chi Omega
A.B., Stanford, 1931
Green, George Leroy — Palo Alto — Geol. gr. — 455 Williams, P-p
A.B., Oklahoma, 1917
Green, Marion M. — Reno, Navada — Med. gr. — 2321 Sacramento, SF-sf
A.B., Stanford, 1929
[12]Green, Oscar Fredric — Palo Alto — Phil. gr. — 555 Waverley,P-Bx322,p
A.B., Rice Institute, 1916; A.M., Stanford, 1927
[4]Green, Raymond Elwood — Fullerton — Educ. gr. — 115 Alma, P-p
B.S., Idaho, 1922
[4]Greene, Amsel — Juliaetta, Idaho — Cl.Lit. gr. — 264 Roble
A.B., Idaho, 1916
[5]Greene, David Lyman — Storrs, Conn. — Educ. gr. — 652 Channing, P-p
A.B., Amherst, 1922; Ed.M., Harvard, 1926
[5]Greene, Nelle Dorris — Phoenix, Ariz. — Educ. gr. — Delta Delta Delta-*1325*
A.B., Stanford, 1931

Greene, William Sumner Pasadena Educ. gr. Phi Sigma Kappa-*538*
A.B., Stanford, 1930
Greene, William Wallace Phoenix, Ariz. Med. gr. 2321 Sacramento, SF-sf
A.B., Stanford, 1929
[4]Greenleaf, Charles R. San Jose Educ. gr. 498 S. 12th, SJ-sj
A.B., San Jose State Teachers College, 1927
[4]Greenleaf, Mary Page San Jose Educ. gr. 498 S. 12th, SJ-sj
A.B., San Jose State Teachers College, 1925
Greenwell, James Oliver, Jr. San Francisco Pre-Med. 88·47+33 618Chn'ng, P-p
Gregg, Douglas Clark Pasadena Law gr. 818 Cowper, P-*J*
A.B., Stanford, 1930
[3]Gregory, Frank Everett Modesto S.Engr. 90·55–11 430 Encina-*955*
[4]Gregory, Izora Wallowa, Ore. LD ‡ 429 Ruthven, P-p
Grelle, James Henry Portland, Ore. Pre-Med. 143+30 PhiKappaSigma
[1]Greninger, Alden B. Potrerillos, Chile Min. gr. 865 Hamilton, P-*860*
A.B., Stanford, 1929, Engineer, 1931
Grey, George C. Glendale Econ. 135+119 Beta Theta Pi-*1335*
Gribbin, Franklin Porter Taft Pre-Med. 90·28–1 436 Encina-*2668*
Gridley, Haines Auburn Phyl. 90·37–30 506 Mayfield-*2794*
Griffin, Eleanor Anne Fresno Educ. gr. Chi Omega
A.B., Stanford, 1930
Griffin, George A. Greybull, Wyo. Geol. 90·77+17 Theta Chi-*1383*
[5]Griffin, John Earsom Modesto Pol.S. 90·42–11 Kappa Sigma-*1326*
[1]Griffith, Ben B. Colorado Springs, Colo. Econ. 90·15+10 222 Fulton, P-p
[4]Griffiths, Mabel Genevieve Los Angeles LD ‡ Roble
Griggs, Paul Clayton Inglewood LD 86+33 Delta Tau Delta-*1363*
[4]Grillo, Claire Louise San Francisco LD ‡ 146 Roble-*2053*
Grimm, Thomas Henry Reno, Nevada Law gr. 545 Encina-*1815*
A.B., Stanford, 1929
[4]Grimmer, Charles Fred Santa Clara Educ. gr. SC-Box 26, Rt. 1, sc
A.B., San Jose State Teachers College, 1927
[4]Gripenstraw, Burton W. Santa Cruz Educ. gr. 110 Toyon
A.B., San Jose State Teachers College, 1928
Griset, Roy Franklin Santa Ana Econ. 96·89–9 524 Homer, P-*1357*
Griswold, Samuel S. San Juan Capistrano Pol.S. 90·44+54 189 Cowper, P
[4]Gross, Carolyn Maude Redlands Engl. gr. 536 Alvarado
A.B., Redlands, 1926
[12]Gross, Merle Roscoe Modesto Hist. gr. 405 Sequoia-*551*
A.B., Stanford, 1930, A.M., 1931
[12]Gross, Stuart Murray Orland, Maine Span. 90·30+26 12 Perry, MP-*1606*
[2]Grotsch, John Elwin Sacramento Econ.‡8–5 189 Cowper, P-p
Grover, Craig Edwin Los Angeles LD 55+5 406 Encina-*2461*
Grupe, Carsten Stockton M.E. gr. 365 Guinda, P-p
A.B., College of the Pacific, 1929; Engineer, Stanford, 1931
Guard, Edmond Charles Santa Ana Soc.S.-Jn. 135+130 220Toyon-*1677*
Guérard, Catherine R. Stanford Univ. LD 93+92 635 Gerona-*1663*
[5]Guild, Elliott William San Jose Econ.-Soc. gr. 850 S. 7th, SJ-sj
A.B., Wisconsin, 1925
Guittard, Horace Albert San Francisco LD 46+14 231 Encina-*536*
Gundry, Francis Joseph Bakersfield Pre-Med. 106+25 Sigma Nu-*1385*
Gunnerson, William Fulton Pasadena Law22·171+33 117P.Rbls,LosAltos
A.B., Stanford, 1931
[1]Gunsolus, Mate Palo Alto Engl. 181+266 557 Hamilton, P-p
A.B., Stanford, 1931
[4]Gunther, Julia Josephine Alger, Mont. Educ. gr. Roble-*672*
A.B., Park, 1913
Guth, Leland Gustave San Francisco LD 40–20 105 Encina

de Haas, Johan Christiaan Holland E.E. gr. 536 Alvarado-*2587*
E.E., Dordrecht Technische, 1925
Hables, Alvin Adolph King City Econ. 121+30 Phi Kappa Psi
Hables, Leslie Irvin Menlo Park LD 100+5 625 Middle, MP-*1168*
[1]Hables, Mary B. Menlo Park S.Engr.99+70 625 Middle, MP-*1168*
Hackney, A. Wayne Pasadena Phys. gr. 219 Sequoia-*2302*
A.B., Stanford, 1930
[3]Haddock, Alfred A. Claremont Econ. 93-15–10 108 Sequoia-*1121*
[13]Hadenfeldt, Charles T. Oakland Econ. 180+8 Phi Delta Theta
A.B., Stanford, 1931
Hadley, Russel Curtis San Mateo Pre-Med. 134+47 26 Branner
Haehl, Harry Lewis, Jr. Palo Alto LD 91+104 Delta Upsilon
Haehl, Veva Jane Palo Alto LD 91+56 Kappa Alpha Theta
Haeske, Carroll M. Bellingham, Wash. Engl. gr. 544 S. 7th, SJ-sj
A.B., Washington, 1924
[4]Hagan, Edith Grace Mannsville, N.Y. Educ. gr. 173 Roble-*2243*
A.B., Syracuse, 1914
[1]Hagedorn, Margaret Elizabeth Modesto Engl. 90- 280 Roble-*1644*
Haggerty, William J. Minneapolis, Minn. S.Bus. gr. 610 Cowper, P-p
A.B., Minnesota, 1930
Haggitt, Eleanor Yvonne Albion, Mich. Engl. gr. Delta Delta Delta-*1325*
A.B., Albion, 1928
Hahn, Vera Theresa Spearfish, S.D. Fr. gr. Sigma Kappa-*2594*
A.B., Stanford, 1930, A.M., 1931
[5]Haight, HenryHuntly Stockton Econ. 16-95+12 Sigma Chi
[4]Haight, Rex C. Grass Range, Mont. Econ. gr. 1245 Stanford, P
A.B., Iowa State Teachers College, 1916
Hails, Richard Osborne Sacramento LD 46+40 19 Encina-*2571*
Halderman, Helen Harriet San Francisco Psych. gr. Pi Beta Phi-*1918*
A.B., Stanford, 1931
[23]Hale, David Suisun Econ. 90-30+35 552 Alvarado-*2131*
Hale, Mary Elizabeth Salt Lake City, Utah Engl. 93-68+87 222 Roble-*2676*
Hale, Prentis Cobb, Jr. San Francisco Econ. 110–10 Alpha Delta Phi-*1*
Hale, Wyatt Walker Birmingham, Ala. Educ. gr. 4 Union-*1191*
B.S., Birmingham-Southern, 1923, A.M., 1926
[4]Hall, Alton Lawrence Palo Alto S.Biol. gr. 790 Amherst, P-*2396*
A.B., Colgate, 1902
Hall, Carolyn Gurley Palo Alto Engl. 134+44 KappaKappaGamma
Hall, Geoffrey R. N. Brooklyn, N.Y. LD 47+16 40 Encina-*1755*
[5]Hall, Harvey Los Angeles Engl. gr. 804 Bryant, P-p
A.B., California at Los Angeles, 1930
[12]Hall, John Kingsley Chicago, Ill. LD sp. 0–52 520 Cowper, P-p
Hall, Marshall Spencer San Jose Law gr. 1694 The Alameda, SJ-sj
A.B., Stanford, 1930
Hall, Nason Eustace Long Beach S.Bus. gr. 850 Palo Alto, P-p
A.B., Stanford, 1930
Hall, Walton K. Salt Lake City, Utah S.Bus. gr. 250 Cowper, P-p
A.B., Utah, 1930
Halley, James Woods Rapid City, S.D. Min. gr. 228 Union-*1624*
A.B., Stanford, 1929
[12]Halvorson, Morgan Huntington Park Chem. gr. 216 Union-*823*
A.B., Whittier, 1929; Engineer, Stanford, 1931
Haman, John O. San Francisco Med. gr. 149 Jordan, SF-sf
A.B., Stanford, 1929
Hamblen, Ralph G. East Norwalk, Conn. Econ. 90-48+9 515 Lytton, P-*984*
[12]Hamilton, Albert Edward Bloomington E.E. gr. 113 Toyon-*1741*
A.B., Stanford, 1931
Hamilton, Francis Kennedy Redding LD 47+35 230 Encina-*1029*

| | | | |
|---|---|---|---|
| Hamilton, Mack John | Great Falls, Mont. | LD 49+7 | 41 Encina-*2292* |
| [4]Hamilton, Marian Laurette | Glendale | Educ. gr. | Roble |
| A.B., California at Los Angeles, 1929 | | | |
| Hamman, Charles Leroy | Oakland | Econ. 180+240 | *237* Toyon-*61* |
| A.B., Stanford, 1931 | | | |
| Hammond, George Brown | Stockton | Econ. 185+18 | Sigma Nu-*1385* |
| A.B., Stanford, 1931 | | | |
| Hammond, Howard, Jr. | Stockton | LD 46+59 | *229* Encina-*1713* |
| Hammond, Laurence W. | Cincinnati, Ohio | Law gr. | 553 Salvatierra-*1402* |
| A.B., Cincinnati, 1920 | | | |
| [4]Hammond, Owsley Bodley | Stockton | LD ‡ | 113 Toyon-*1385* |
| Hammons, Hal Valentine | Ventura | Phil. 130+30 | Kappa Alpha |
| Hampton, Gerald Paul | San Francisco | LD 18·88+23 | Delta Kappa Epsilon |
| Hampton, Henry S. | Cheney, Wash. | Educ. gr. | Menlo J. C., MP-mp |
| A.B., Washington State, 1929; A.M., Stanford, 1931 | | | |
| [12]Hanavan, Mitchell Grattan | Dunsmuir | LD 44+35 | *29* Encina-*1533* |
| [28]Hancock, Bob | Yale, Okla. | Geol. gr. | Kingscote-*92* |
| B.S., Chicago, 1930 | | | |
| Hancock, John, Jr. | Stockton | LD 87+20 | Zeta Psi-*B* |
| Hand, Milton Norval | San Diego | Educ. 90·115+19 | 409 Sequoia-*2631* |
| Handke, August F. | Colorado Springs, Colo. | LD 43+11 | *204* Encina-*1586* |
| Handler, Marvin | Great Falls, Mont. | Law gr. | *222* Sequoia Ave., P-p |
| A.B., Cornell, 1930 | | | |
| Hanger, James F. | Laupahoehoe, T.H. | Law gr. | *329* Hawthorne, P-Bx304, p |
| A.B., Southwest Texas State College, 1926 | | | |
| [3]Hanna, Henry Charles, Jr. | Los Angeles | Econ. 31·149+5 | *203* Taffe, S-s |
| A.B., Stanford, 1931 | | | |
| Hanna, Richard Rea | Martinez | Pol.S. 126+19 | Alpha Sig. Phi-*1357* |
| [1]Hanna, William Sandoe | Gilroy | LD 11–17 | 108 Encina-*2124* |
| [5]Hannibal, Lester Stuart | San Jose | Chem. gr. | 211 Union |
| A.B., Stanford, 1930 | | | |
| [5]Hanscom, William Wallace | San Francisco | Chem. 171+47 | *324* Sequoia-*2484* |
| Hansen, Norman Groves | Palo Alto | S.Eng.90·101+95 | 120 Waverley, P-p |
| [5]Hansen, William W. | Fresno | Phys. gr. | 315 Union-*1272* |
| A.B., Stanford, 1929 | | | |
| Hanson, Raymond Lester | San Francisco | LD 95+29 | Sigma Alpha Eps.-*1305* |
| [5]Hanson, Stewart M. | Salt Lake City, Utah | Pol.S. 97·47+18 | *29* Kingscote |
| [4]Hanson, Theodore C. | Salt Lake City, U. | Phil. 97· | 564 University, P-*1093* |
| Harber, Clarice Bell | Sacramento | Soc.S. 90·94+103 | Alpha Phi-*1387* |
| A.B., Stanford, 1931 | | | |
| Harcourt, Edith Miriam | Palo Alto | LD 46+50 | 250 Roble-*1954* |
| Harcourt, John Terry | Mt. Vernon, N.Y. | Econ. 97·88+41 | 160 Palo Alto, P-p |
| A.B., Stanford, 1931 | | | |
| Harcourt, Shirley | Palo Alto | Pol.S. 135+116 | 216 Roble-*1954* |
| Hardin, Achsah Alice | Pueblo, Colo | Educ. gr. | 533 Lasuen-*1515* |
| A.B., Western State College of Colorado, 1923 | | | |
| Harding, Victor Hunt | Palo Alto | Pol.S. gr. | 940 College, P-*2623* |
| A.B., Stanford, 1925 | | | |
| Harding, William Wadley | Los Angeles | Econ. 90·45+11 | Delta Chi-*1304* |
| [4]Hardman, Maud R. | Salt Lake City, Utah | Ed.-G.A. gr. | 337 Tennyson, P-p |
| A.B., Utah, 1924 | | | |
| Hardy, Arthur Gustave | Oakland | Econ. 166+68 | Kappa Sigma-*1326* |
| Hardy, Donald | Canon City, Colo. | LD 88+29 | 114 Toyon-*1651* |
| [4]Hardy, Grahame Hetherington | Piedmont | LD ‡ 13+0 | Toyon |
| [5]Hare, Donald George | Fresno | Phys. 90·76+35 | 250 Middlefield, P-p |
| [5] Harlan, Lorraine | Palo Alto | Hist. 90·85+50 | 949 Emerson, P-p |

[1]Harmer, Ralph Lemuel — Greeley, Colo. — Educ. gr. — Menlo School, MP-mp
A.B., Colorado State Teachers College, 1927, A.M., 1930

Harms, Herman, Jr. — Salt Lake City, Utah — LD 22+22 — 119 Encina-*1682*

[4]Harold, Elbert Wilson — Pocatello, Ida. — LD ‡ 56+20 — 243 Toyon-*551*

Harper, Dale Jack — Fairfield, Iowa — Econ. 135·47+19 — 423 Encina-*2554*
A.B., Stanford, 1931

[1]Harrington, John F. — San Luis Obispo — Econ. 130–17 — 218 Branner-*1855*

Harris, Everett Glenn — Fresno — Law gr. — Theta Chi-*1383*
A.B., Stanford, 1930

Harris, Henry, Jr. — San Francisco — Law gr. — 531 Encina-*1655*
A.B., Stanford, 1930

Harris, Henry Andrews — Pacific Grove — LD 44+4 — 208 Encina-*2293*

Harris, Lawrence W., Jr. — San Francisco — Econ. 153+78 — Chi Psi-*1648*

Harris, Lillian Dale — Ontario — Psych. 90·48+32 — 278 Roble-*2231*

Harrison, Elston Mills — Pasadena — Soc.S. 94·32+6 — 20 Kingscote

[2]Harrison, Kenneth Grant — Marysville — S.Engr. 87·55–6 — 108 Sequoia-*1082*

Harrison, Marlow Bristow — San Francisco — LD 95+106 — 109 Toyon-*2303*

[4]Harrison, Mary Rebecca — Parkville, Mo. — Educ. gr. — 271 Roble-*2743*
A.B., Park, 1920; A.M., Chicago, 1922

[12]Harrison, Theta — Palo Alto — Educ. gr. — 718 Bryant, P-p
A.B., West Virginia, 1920; A.M., Columbia, 1924; Ed.D., Stanford, 1931

[5]Harrold, Orville Goodwin,Jr. — Sacramento — Math. gr. — 202 Union-*1904*
A.B., Stanford, 1931

Harroun, Alvin Winfred — Malaga, N.M. — LD 89+19 — Delta Upsilon

[1]Harry, C. Howard — Norristown, Pa. — Econ. 135·16+10 — 2105Emerson,P-p

Hart, C. Allan, Jr. — Portland, Ore. — Engl. 22·182+259 — 124 Toyon-*2402*
A.B., Stanford, 1931

[12]Hart, George David — San Francisco — Econ. gr. — 213 Branner-*916*
A.B., Stanford, 1931

[5]Hart, James David — San Francisco — Engl. 127+46 — 2320 S. Court-*2194*

[4]Hart, Morton Edwin — San Mateo — LD — 30 El Cerrito, SM-sm

Hart, Russell Blackwell — Billings, Mont. — Hist. 181+308 — Phi Gamma Delta
A.B., Stanford, 1931

[4]Harter, Vesta Vera — Woodland — Educ. gr. — 240 Roble
A.B., San Jose State Teachers College, 1927

Hartley, Kenneth Ross — Los Angeles — LD 82–1 — Alpha Tau Omega-*1384*

Hartman, Milton Morris — San Francisco — Med. gr. — 879 24th Ave., SF-sf
A.B., Stanford, 1929

Hartman, Rodney B. — Los Angeles — Med. gr. — 2321 Sacramento, SF-sf
A.B., Southern California, 1926

[4]Hartranft, Glenn — Paso Robles — Educ. gr. — Kappa Sigma-*1326*
A.B., Stanford, 1929

Hartwell, Sheldon Pearne — Los Angeles — Law gr. — Kappa Alpha
A.B., Stanford, 1928, LL.B., 1931

Hartzell, Homer Vincent — Portland, Ore. — Pre-Med. gr. — 427 Encina
A.B., Stanford, 1930

Harvey, Fred Charles — Spokane, Wash. — Phy1.180+35 — AlphaSigmaPhi-*1357*
A.B., Stanford, 1931

[5]Harwood,Aubrey Hughes — Lynchburg,Va. — Law gr. — 836 Forest, P-p
B.S., Virginia, 1918

[12]Harwood, Catherine Aurelia — Pasadena — Cl.Lit. 48·76+77 — Kap. Kap. Gam.

Harwood, Edwin Temple — Pasadena — LD 57+17 — 118 Encina-*1751*

Harwood, Wilson Franklin — San Francisco — LD 43–12 — 200 Encina

Hatch, Ernest Edward — Beverly Hills — Engl.-P.Sp. 139+17 — 114 Toyon-*665*

Hathaway, William Sherman — Los Angeles — LD 41–15 — 332 Encina-*533*

Hattrup, Richard Adolph — Fresno — LD 98+114 — 113 Branner-*1112*

[4]Haulot, Leona Mary — Tempe, Ariz. — Educ. gr. — 365 Roble
A.B., Arizona, 1923

| | | | |
|---|---|---|---|
| Hauser, Rupert V., Jr. | Portland, Ore. | LD 47+25 | 117 Encina-*2465* |
| [4]Haven, Hilda Margaret | Hayward | LD | 336 Roble-*2224* |
| [4]Hawes, Lillian Josephine | Riverside | Soc.S. 135·31+6 | 169 Roble |
| Hawkins, Adrienne Ann | Piedmont | LD 88+8 | Gamma Phi Beta-*1337* |
| Hawkins, David | La Luz, N.M. | LD 51+14 | 128 Encina-*1423* |
| Hawkins, Elizabeth Ziemer | Reno, Nev. | LD 104+89 | Pi Beta Phi-*1918* |
| Hawkins, Frederick Henry<br>A.B., Stanford, 1931 | Pasadena | Econ. 181+249 | Phi Delta Theta |
| [12]Hawkins, Helen Idelle<br>A.B., Stanford, 1931 | Hickman | Span. 180+105 | Sigma Kappa-*1327* |
| Hawkins, Willis F.<br>A.B., Stanford, 1931 | Minneapolis, Minn. | Econ. 90·95+97 | 329 Union-*1222* |
| [14]Hawkinson, Lawrence Axel<br>A.B., San Jose State Teachers College, 1930 | San Jose | Educ. gr. | 923 S. 8th, SJ-sj |
| Hawley, Abraham L., Jr.<br>A.B., Stanford, 1930 | El Paso, Tex. | Min. gr. | 243 Everett, P-p |
| [5]Hawley, Florence Ogier<br>A.B., Stanford, 1930 | Palo Alto | Pol.S. gr. | 243 Everett, P-p |
| [12]Hawley, Gertrude<br>A.B., Vassar, 1911; A.M., Iowa, 1928 | Los Angeles | Anat. gr. | 575 Salvatierra |
| [12]Hawley, Robert Clinton<br>A.B., Stanford, 1931 | Santa Paula | Span. 31·149+26 | Sig.Al.Eps.-*1305* |
| Hawley, Stuart Meek | Piedmont | LD 72+13 | Zeta Psi-*B* |
| Hay, Francis George | Bakersfield | Econ. 149+125 | Delta Chi-*1304* |
| Hay, Harry | Los Angeles | LD 46+56 | 317 Encina-*2001* |
| Hay, Jean Courtney | San Diego | LD 13·48+32 | 337 Roble-*1107* |
| [4]Hayden, Sheldon Miller<br>A.B., Stanford, 1930 | Azusa | Educ. gr. | 201 Union |
| [1]Haydock, J. Wesley | San Carlos | Econ. 105+52 | 672 Walnut, SC-sc |
| [4]Hayes, Cecil Branner<br>A.B., McPherson, 1926; A.M., Stanford, 1930 | Palo Alto | Educ. gr. | 686 Columbia, P-*828* |
| [5]Hayes, Emmet Bunsen | Burlingame | Soc.S. 90·47+13 | Al.Sig.Phi-*1357* |
| [4]Hayes, Lloyd Hardy<br>B.S., North Dakota, 1927 | Sunnyvale | Educ. gr. | 345 Carroll, S-s |
| Hayhurst, L. Nelson<br>A.B., Stanford, 1929 | Fresno | Law gr. | 515 Lytton, P-*1278* |
| Hayman, Richard E. | San Francisco | Econ. 163+86 | 103 Branner |
| [1]Haynes, Boyd West<br>A.B., Oregon, 1921 | San Francisco | Chem. gr. | 1147 Ramona, P-p |
| Hays, John | Palo Alto | LD 62+82 | 635 Cowper, P-p |
| Hays, Marcia Susan<br>A.B., Mills, 1925 | San Mateo | Md.gr. 570ElCmno delMar,SF-sf | |
| [4]Hays, Robert Paden<br>A.B., Stanford, 1925 | Pasadena | Zoöl. gr. | Carmel-c |
| [4]Hayward,Dorothy Genevieve<br>B.S., Southern California, 1926 | LosAngeles | Educ. gr. | 308 Roble |
| Hazeltine, Herbert S., Jr.<br>A.B., Stanford, 1931 | Los Angeles | Econ. 6·176+20 | Sigma Nu-*1385* |
| Hazlett, James Charles<br>A.B., Stanford, 1931 | Palo Alto | S.Engr. 100·81+33 | 1327 Byron,P-p |
| [3]Healy, Daniel Bringhurst | Long Beach | S.Engr. 90·4–30 | 715 Bryant, P-p |
| Hearn, Arthur Charles | San Francisco | LD 46+13 | 323 Encina-*517* |
| Hearne, Allen<br>A.B., Stanford, 1931 | Sierra Madre | Math. 58·122+26 | 113 Branner |
| [5]Heaslet, Max Alfred<br>A.B., Oklahoma, 1927, A.M., 1929 | Miami, Okla. | Math. gr. | 3 Union-*145* |
| [2]Heath, Harrison French<br>B.S., Washington, 1916, A.M., 1921 | San Jose | Educ. gr. | 260 S. 15th, SJ-sj |

| | | | |
|---|---|---|---|
| Heche, Gordon Ferdinand | Alameda | Econ. 123+35 | 230 Branner |
| [1]Heffelfinger, Raymond W. | Los Angeles | Pol.S. 180+31 | 226 Toyon-*2108* |
| A.B., Stanford, 1931 | | | |
| Hegland, Sheridan N. | Sioux City, Iowa | Econ. 94·44+18 | 446 Forest, P-p |
| [12]Hegy, Joseph | San Jose | S.Engr. 90·28–19 | 70B S.8th,SJ-sj |
| Heiges, Cyrus Kenneth | Lompoc | LD 55+4 | 127 Encina-*2373* |
| Heiges, Laurence E., Jr. | Lompoc | Med. gr. | 2180 Washington, SF-sf |
| A.B., Stanford, 1929 | | | |
| Heiliger, Edward Martin | Rockford, Ill. | Econ. 95·43–20 | 762 Dolores-*503* |
| [23]Heinecke, Hazel Joan | San Clemente | LD 29+19 | 114 Roble-*2035* |
| Heinecke, Walter | Santa Ana | Econ. 181+53 | 122 Toyon-*2668* |
| A.B., Stanford, 1931 | | | |
| Heinke,Orrin Everett | Clovis | S.Bus. gr. | 212 Union |
| A.B., Fresno State College, 1929; M.B.A., Stanford, 1931 | | | |
| Heiser, Pete Eugene | Los Angeles | Econ. 141+14 | Delta Upsilon |
| Held, William Poage | Stanford Univ. | Pol.S. gr. | 304 Branner-*1098* |
| A.B., Stanford, 1931 | | | |
| Hellbaum, Frederick E. | Spokane, Wash. | Med. gr. | 373 Everett, P-p |
| A.B., St. Olaf, 1930 | | | |
| Hellman, Herman Wallace | Los Angeles | Econ. 47·87+46 | 2320 S.Ct.,P-*2347* |
| [14]Helmke, Guy Martin | Fort Seward | Ed.-G.A. gr. | 424 Seneca, P-*1383* |
| A.B., Stanford, 1931 | | | |
| Hemingway,FranklinW. | Kansas City,Mo. | S.Bus. gr. | 738 Guinda, P-p |
| B.S., Princeton, 1926; M.B.A., Stanford, 1931 | | | |
| Hemming, Robert LeGrande | Coronado | Econ. 135·46–9 | 1027Waverley,P-p |
| [4]Hempstead, Walter E., Jr. | Portland, Ore. | Law gr. | Phi Kappa Psi |
| A.B., Oregon, 1929 | | | |
| [134]Henderson, Beatrice M. | San Francisco | Soc.S.31·129+43 | 570Mayfield-*2227* |
| Henderson, Charles E. | Salt Lake City, U. | Law gr. | 736 Webster, P-p |
| A.B., Utah, 1929 | | | |
| Henderson, Emmett Edward | Campbell | Med. gr. | 304 Sequoia-*904* |
| A.B., Stanford, 1930 | | | |
| [124]Henderson, Hayden Dewar | Elko, Nev. | LD 14–10 | 27 Encina-*1534* |
| [214]Henderson, Lester Dale | Juneau, Alaska | Educ.gr. 701 | Paloma,Burlingame-b |
| A.B., Tarkio, 1911; A.M., Stanford, 1930 | | | |
| Henderson, Richard William | Burlingame | LD 93+42 | Theta Chi-*1383* |
| [14]Hendricks, Robert Arthur | Mesa, Ariz. | Hist. gr. | 304 Sequoia |
| A.B., Stanford, 1931 | | | |
| Henry, Florence May | Riverside | Engl. gr. | 173 Roble-*2725* |
| A.B., Stanford, 1930 | | | |
| [5]Henry, James Gordon | Montclair, N.J. | Pol.S. 169+14 | Delta T. Delta-*1363* |
| Henry, Wilbur Vincent | Los Altos | LD 56+7 | 824 Bryant, P-p |
| Hepp, Virgil Eugene | Long Beach | LD 19·87+86 | Phi Kappa Psi |
| Heppner, Myer John | San Francisco | Med. gr. | 1905 Laguna, SF-sf |
| B.S., California, 1921, M.S., 1922 | | | |
| Herbert, Alden Libey | San Luis Obispo | LD 88+1 | 248 Toyon-*2665* |
| Herbert, Harlan Bates | Oakland | LD 98+70 | 137 Toyon |
| [3]Herndon, John Bostrom | Gonzales | Pre-Med. 115+37 | 119 Toyon-*1202* |
| Herreman, Harold Milton | Palo Alto | LD 13·67+19 | 103 Sequoia |
| [12]Hershey, Benjamin Tillotson | Boise, Ida. | LD 30+10 | 250 Encina-*909* |
| Herzog, George Kramer | San Francisco | LD 44+20 | 21 Encina-*52* |
| Hess,Harlan Bernard | Morrill, Neb. | Phys. 45·144+64 | 334 Union-*861* |
| Hesselmeyer, Anna Dorothea | Palo Alto | Econ. 90·93+102 | 734 Melville, P-p |
| A.B., Stanford, 1931 | | | |
| Hesselmeyer, Harry Leonard | Palo Alto | S.Engr. 143+262 | 734 Melville, P-p |
| [3]Hetzel, Victor Leo | El Centro | Econ. 97·53–26 | 324 Union-*2192* |

Heusi, William McKinley — Palo Alto — S.Biol. gr. — 231 Emerson, P-p
B.S., California, 1929
Hewit, Elizabeth Elaine — Spokane, Wash. — LD 90+11 — Gamma Phi Beta-*1337*
Hewlett, Jane — San Francisco — LD 41–1 — 221 Roble
Hewlett, Louise R. — San Francisco — Engl. 181+*223* — Delta Gamma-*1366*
A.B., Stanford, 1931
Hewlett, Marion — San Francisco — LD 96+54 — Pi Beta Phi-*1918*
Hewlett, William R. — San Francisco — LD 42+5 — 201 Encina-*2781*
Hiatt William Nauerth — Rivera — LD 45+5 — 348 Encina-*2101*
Hickerson, George X., Jr. — Los Angeles — Econ. 140+37 — 201 Branner-*2665*
[1]Hickethier, Edgar John — Vallejo — LD 51·54–20 — 211 Branner-*2605*
[5]Hickman, Hallien Dee — Centerville, Iowa — Engl. 138+139 — Del. Del. Del.-*1325*
[3]Hickman, John Peralta — Santa Monica — LD 78–12 — Stanford Univ.
[5]Hicks, Arthur Clark — Eugene, Ore. — Engl. gr. — 159 Kellogg, P-p
A.B., Oregon, 1922, A.M., 1927
[1]Higbee, John Elroy — Los Angeles — Econ. 90·5–25 — 1128 High, P
[23]Higgins,Kenneth Clifton — Tulsa, Okla — LD 70+20 — 601 Webster, P-*547*
Higgins, Lawrence Nelson — Long Beach — S.Engr.9·176+39 — 129Branner-*2665*
A.B., Stanford, 1931
[4]Highfill, Floyd J. — Los Angeles — Educ.gr. 815Stanford,P-(Sta.A)p
B.S., Southwest Missouri State Teachers College, 1921
Hightower, Ann McClaran — Orland — Engl. 144+66 — Chi Omega
Hill, Arthur Lionel — Milpitas — S.Engr. 106·54+19 — Milpitas, m
Hill, Clair Ashcroft — Redding — S.Engr. 93·49+48 — 105Sequoia-*1195*
Hill, Harry Hartley — Corona — S.Bus. gr. — 1116 Bryant, P-p
A.B., Stanford, 1930
[4]Hill, Ned Wallace — Phoenix, Ariz. — Educ. gr. — 557 Lasuen-*1335*
A.B., Juniata, 1925
Hill, Ruth Elizabeth — Salinas — Fr. gr. — 17 Kingscote
A.B., Stanford, 1931
Hill, Theodore Albert — La Cañada — Pol.S. gr. — 128 Kingsley, P-p
A.B., California at Los Angeles, 1930; A.M., Stanford, 1931
Hill, William Denver, Jr. — Los Angeles — Econ. 95·40–7 — Sigma Chi-*2241*
Hillman, Harry Hayes — Los Angeles — S.Engr. 152+23 — Zeta Psi-*B*
Hillman, Jack Newton — Los Angeles — LD 43+1 — 310 Encina-*612*
Hills, Fred Robert — San Francisco — LD 45+17 — *237* Encina-*858*
Hilmer, Frederick Birch — Palo Alto — Chem. gr. — 350 Embarcadero, P-p
A.B., Stanford, 1930
Hilmer, George Haskell — San Francisco — Hist. 146+9 — Chi Psi-*1648*
[5]Hinchliffe, John William, Jr. — S. Pasadena — Econ. 120–8 — Phi Gamma Delta
[23]Hind, John Dwight — Manila, P.I. — LD 30+4 — 116 Encina
Hindry, Horace Waldo — Denver, Colo — Min. gr. — *323* Union-*2488*
A.B., Stanford, 1930
[23]Hinds, John Louis — Westfield, N.J. — Hist. gr. — 520 Alvarado
A.B., Stanford, 1928
Hine, Mary Harriet — Eureka — LD 44+25 — 350 Roble-*1742*
Hines, Fred George — San Anselmo — Educ. 110+175 — 213 Sequoia-*1054*
Hines, Margaret Elizabeth — Portland, Ore. — Chem. gr. — 176 Roble-*935*
A.B., Reed, 1929; A.M., Stanford, 1931
Hinman, H. Thornton — San Francisco — LD 46+20 — 336 Encina-*2215*
[5]Hirayama, Masaichi — Kobe, Japan — LD 67·85+11 — 472 Sheridan, P-p
[5]Hirsch, James Marvin — Los Angeles — Soc.S. 84·84+8 — 87 Crescent, P-p
[5]Hirschman, John Adolph — San Francisco — Psych. 103+4 — 212 Toyon
[1]Hirst, Elizabeth Starbuck — Piedmont — Fr. ‡ — 207 Roble
Hise, Don William — Des Moines, Iowa — Pol.S. 181+118 — Sig. Al. Eps.-*1305*
A.B., Stanford, 1931

Hitchcock, John Rolfe,Jr. Amarillo,Texas LD 47+41 220 Encina-*2111*
[12]Hitt, Gwendolyn O'Bert Los Angeles LD 11–3 227 Roble-*826*
[2-14]Hiura, George Yoshimi Sebastopol S.Biol. 90·75+18 JapaneseClub-*598*
[5]Ho, Beyne Swatow, China Econ. gr. 528 Salvatierra-*2026*
A.B., Stanford, 1931
Hoag, Richard Rockwell San Francisco Econ. 90·41+5 Theta Xi
Hoagland, Henry W. La Jolla LD 44+37 344 Encina-*1951*
Hoagland, Paul Ingalls, Jr. Phoenix, Ariz. LD 51·59+19 125 Encina-*1190*
[5]Hobbie, Henry William Redwood City Chem. gr. 403 Sequoia-*1324*
A.B., Stanford, 1930
Hobbs, Kenneth L. Linden, Maryland Zoöl. gr. *327* Wvrly, P-Box 673, p
A.B., George Washington, 1929
Hockman, Albert Benjamin Whittier S.Eng.90·92+112 311Mdfld,P-*1211*
A.B., Stanford, 1931
[12]Hodge,Edgar Ashmun S. Paulo, Brazil LD 71–16 Phi Kappa Sigma
Hodge, Richard Ridnour Tacoma, Wash. LD 45+18 115 Encina-*1862*
Hoedel, Robert Blacow Oakland Econ. 181+105 122 Toyon-*2668*
A.B., Stanford, 1931
[23]Hoerner, Jack Walker Hastings, Neb. LD 18·26+1 351 Encina-*2421*
[4]Hoessel, Sheldon W. Stockton Educ. gr. 365 E. St. James, SJ-sj
A.B., San Jose State Teachers College, 1928
Hoffman, Charles Hague Oakland LD 91+13 Sigma Nu-*1385*
Hoffmann, Richard Albert Oakland LD 94+30 432 Encina-*1300*
Hogevoll, Thelma Rachael San Francisco LD 46+30 335 Roble
[12]Hogue, Denny Robert Payette, Ida. Econ. 132·48+91 1130 Univ., P-p
A.B., Stanford, 1931
Hohberger, Roy Anton Redwood City Educ. 94·45+25 330 Edgwd, RC-rc
Holbrook, Bradley Kay Piedmont LD 44+16 329 Encina-*515*
Holbrook, Raymond B. Provo, Utah Law gr. 233 Addison, P-p
B.S., Brigham Young, 1927; LL.B., Stanford, 1931
Holcomb, Harvey Douglas San Francisco LD 96+98 Menlo Pk.-RFD 2, mp
[4]Holden, Harry D. Bayard, Neb. Educ. gr. 659 Salvatierra
A.B., Ohio, 1918
[1]Holden, Robert Gray Truckee LD 59–15 Alpha Kappa Lam.-*658*
[4]Hollenberg, George Jacob La Verne Bot. gr. Pacific Grove-pg
A.B., LaVerne, 1921; A.M., Manchester, 1922
[4]Holley, Katherine Elizabeth Maud, Okla. LD 828 Cowper, P-p
Hollingsworth, John Binford Hemet Med. gr. 2180 Washington, SF-sf
A.B., Stanford, 1929
[3-14]Hollingsworth, Robert B. Fresno Econ. 112·50+4 305 Union-*1860*
Holm, Herbert Kenneth Eureka LD 49–13 304 Encina
Holman, Donald H. Portland, Ore. Econ. 87·94+48 Chi Psi-*1648*
A.B., Stanford, 1931
[4]Holmboe, Rudyard David Roseville LD 137 Toyon
Holmes, Harlan Banta Palo Alto Zoöl. gr. 1314 Parkinson, P-p
A.B., Stanford, 1922, A.M., 1931
[34]Holmes, Herbert Hayden Junction, Ariz. Econ.-Acct. 97+52 562Encina-*1855*
Holmes, James Francis Rio Linda Econ. 90·60–11 313 Sequoia-*81*
Holmes, Leffel English Delano LD 43–2 233 Encina-*2163*
Holmes, Rawson Stannage Berkeley LD 98+100 247 Branner-*2367*
Holt, Achilles Madison El Paso, Texas Phil. 180+60 710 Yale, P-(Sta.A)p
A.B., Stanford, 1931
Holt, Frank Harrison Stockton LD 44+0 315 Encina-*2153*
Holt, Parker Morton Piedmont Econ. 5·151+28 DeltaT.Delta-*1363*
Holt, Pliny Guernsey Stockton LD 59–9 314 Toyon-*2153*
Holwerda, Jack Muskegon, Mich LD 91+27 500 Encina

[4]Homewood, Boyd C. The Dalles, Ore. Engl.-P.Sp. gr. 919 Addison, P
B.S., Oregon, 1927
[12]Hooker, Grover Cleveland Palo Alto Educ. gr. 136 Harriet, P-p
A.B., Colorado, 1924, A.M., 1924
[4]Hooper, Herschel V. Buckeye, Ariz. Educ. gr. 530 Webster, P-p
A.B., Oklahoma Baptist University, 1923
Hoover, John Page San Mateo Hist. 90·94+119 100 Pnslr,SM-sm
A.B., Stanford, 1931
[4]Hoover, Lawrence Marshall Fresno Educ. gr. 522 Webster, P-p
A.B., Fresno State College, 1928
Hopkins, Isabelle Wichita, Kans. Soc.S. 90·96+22 Chi Omega
A.B., Stanford, 1931
Hopper, R. Elizabeth Palo Alto LD 37–12 254 Roble-*886*
Hopwood,Edward Barlow Honolulu,T.H. LD 46+18 246 Encina-*1901*
[4]Hornbuckle, Seykora San Diego Educ. gr. 455 Forest, P
A.B., San Diego State Teachers College, 1925
Horton, Eugene Austin Lincoln, Neb. LD 89+56 242 Branner-*2057*
[4] Horton, Mark M. Los Angeles Engl. gr. 815 Stanford, P
A.B., Columbia, 1912
Hosmer, Elizabeth Page Tacoma, Wash. LD 95+113 349 Roble-*1947*
[4]Houstman, Chauncey Ray Long Beach Educ. gr. 660 Waverley, P-p
A.B., Iowa State Teachers College, 1912
Houston-Shaw, Frederic Menlo Park S.Bus.gr. 6 Hrmsa,MP-Bx878,mp
B.S., Kentucky, 1921; M.B.A., Stanford, 1931
[4]Hovious, Carol Faye Los Angeles Engl. gr. Cardinal Ct., P-p
A.B., Wisconsin, 1926; A.M., Southern California, 1930
How, John Hock Canton, China E.E. gr. 528 Salvatierra-*583*
A.B., Stanford, 1930
[5]Howard, Charles Wilber Palo Alto Educ.gr. 1528College,P-(Sta.A)p
B.S., Kansas State Agricultural, 1922, M.S., 1929
[4]Howard, John A., Jr. Clarkdale, Ariz. Educ. gr. Union
A.B., Kentucky, 1928; A.M., Arizona, 1929
[12]Howard, LBen Palo Alto Pol.S. 77·103+59 319 Mdlfld, P-p
A.B., Stanford, 1931
Howard, Lot Duncan, Jr. San Jose Med. gr. 2209 Van Ness, SF-sf
A.B., Stanford, 1929
[4]Howard, Susan Jane Bowling Green, Ky. Math. gr. 552 Everett, P-p
A.B., Western Kentucky Teachers College, 1925
Howard, William Thomas Burlingame Econ. 90·91+39 1357 Drake, B-b
A.B., Stanford, 1931
Howe, Charles Roland, Jr. Atascadero Econ. 142+7 Theta Chi-*1383*
Howe, Lemuel Hinton Atascadero LD 44+33 308 Encina-*1792*
Howe, Robert Howard Hollywood Econ. 5·178+146 Theta Chi-*1383*
A.B., Stanford, 1931
Howe, William Gould Hollywood LD 94+53 Theta Chi-*1383*
Howell, Alfred Charles, Jr. Los Angeles S.Engr. 180+29 145 Toyon-*2762*
A.B., Stanford, 1931
Howell, James F. El Segundo S.Engr. 183+142 Del.T.Delta-*1363*
A.B., Stanford, 1931
Howell, Leslie Lee El Segundo Econ. 138+159 Delta T. Delta-*1363*
[12]Howell, Warren Richardson Berkeley LD 11+2 218 Encina-*594*
Howell, William A., Jr. Bakersfield Soc.S. 90·46+20 Phi Sig. Kap.-*538*
Hoxie, Albert B. Beverly Hills LD 45+63 307 Encina-*892*
[4]Hoxie, Stephen Parker Los Angeles Pol.S. 20·119+13 8 Union
[4]Hoy, Elvin Albert Honolulu, T.H. Math. gr. Delta Chi
A.B., Oregon Agricultural, 1925
Hubbard, Royal Eugene Oakley, Idaho Pol.S. 180+127 214 Toyon-*989*
A.B., Stanford, 1931

Hubler, Gaylord Neal — Porterville — Law gr. — 637 Alvarado-*1352*
A.B., Stanford, 1929, LL.B., 1931
[1]Hudson, Charles M. — Ardmore, Okla. — LD 14·67–17 — Phi Gamma Delta
Hudson, Claire Benedict — Pacific Grove — LD 87+43 — Kappa Alpha Theta
Hudson, James Paul — El Paso, Texas — S.Biol. 135·47+30 — 555Wvrly,P-*691*
A.B., Stanford, 1931
Hudson, Louise Estelle — Watsonville — LD 102+75 — Pi Beta Phi-*1918*
Huebner, Robert Sanford — San Francisco — LD 83+33 — 314 King, RC-rc
Hughes, Clarice — Oakland — Econ. 28·119–8 — Del.Del.Del.-*1325*
[5]Hughes, Myna Brunton — Burlingame — Eng.-P.Sp. 22·130+186 — 210 Roble
Hughes, Olin Rice — Santa Clara — Hist. gr. — 1565 Franklin, SC-sc
A.B., Stanford, 1930
Hulen, Ray — Long Beach — Hist. 164+49 — Delta Kappa Epsilon
[12]Hume, Jackson Walter — San Francisco — LD 45·103+12 — 639 University, P
Hume, Robert Arthur — Brookings, S.D. — Law gr. — 530 Encina-*1468*
A.B., Stanford, 1929
Humiston, Thomas Frederic — Santa Ana — Soc.S. 90·45+31 — Delta Chi-*1304*
[1]Humphreys, Cecil W. — Stockton — Chem. gr. — 215 Union-*2401*
A.B., College of the Pacific, 1927; Engineer, Stanford, 1928, Ph.D., 1931
[4]Humphreys, Emily Grace — Madera — Educ. ‡ — 220 Roble-*1767*
[13]Humphreys, John Wills — Madera — LD 26+4 — 137 Encina-*1767*
Humphreys, Philip Elfers — Madera — Soc.S.-Jn.135+16 — Th.Del.Chi-*1767*
Hundley, Roy Albert — San Francisco — LD 100+50 — 237 Branner
[4]Huneke, Helen Josselyn — Spokane,Wash. — Educ. gr. — 565 Salvatierra-*2482*
A.B., Stanford, 1928
Huneke, John — Spokane, Wash. — Pol.S. 139+105 — 241 Branner-*575*
[5]Hung, Ko Wong — Swatow, China — Educ. gr. — Chinese Club-*1252*
A.B., Lingnan, 1927; A.M., Stanford, 1930
Hungate, Charles Richard — Cheney, Wash. — Educ. gr. — MenloJ.C.,MP-Bx35,mp
A.B., Washington, 1930
[14]Hungate, Robert Edward — Palo Alto — S.Biol. gr. — 1425 Alma, P-p
A.B., Stanford, 1929
Hunken, John William — San Francisco — Pre-Med. 175+50 — Kappa Sig.-*1326*
Hunnicutt, Arthur Jesse — Whittier — Med. gr. — 333 Union-*1084*
A.B., Whittier, 1928
Hunsaker, Harold Ellsworth — Salida — Econ. 90·59+65 — 526 Encina-*2555*
Hunt, Albert Barker — Santa Barbara — Econ. 136+114 — Beta Theta Pi-*1335*
Hunt, Byron Lewis — Los Gatos — LD sp. 92+39 — 83 Fairview, LG-lg
[12]Hunt, Ernest Paul — Palo Alto — Phys. Ed. gr. — 127 Harriet, P-p
A.B., Indiana, 1913
Hunt, John MacLain — Glendive, Mont. — Law gr. — 1212 Fulton, P-p
A.B., Stanford, 1929
Hunt, Oswald Augustus — Santa Barbara — LD 92+108 — 140 Toyon-*618*
Hunt, Robert W. — Santa Barbara — Med. gr. — 2480 Washington, SF-sf
A.B., Stanford, 1926
[4]Hunter, Charles Henry — Palo Alto — Hist. gr. — 482 Everett, P-p
A.B., Stanford, 1927, A.M., 1928
Hunter, Francis Bernard — San Diego — LD 10·128–13 — Carmel-c
[4]Hunter, George — Dunsmuir — Educ. gr. — 207 Union
A.B., Baylor, 1927
Hunter, Harold Wayne — Eureka — Math. 90·94+51 — 315 Sequoia-*873*
A.B., Stanford, 1931
[1]Hunter, Robert Charles — Portland, Ore. — LD 43+46 — 432 Encina-*712*
[12]Hunter, Thomas Benton — San Francisco — S.Engr. 90·48–10 — Chi Psi-*1648*
Hunter, Wayne Edwin — San Jose — Econ. 5·176+13 — 107 Branner-*928*
A.B., Stanford, 1931
Hunting, William Fred — Springfield, Ohio — LD 77+37 — Phi Gamma Delta

Huntington, David — Los Gatos — LD 90+0 — Chi Psi-*1648*
[5]Hupp, William Ward — Berkeley — Econ. 135+53 — 601 Laurel, P-p
[23]Hurlbut, John Bingham — Omro, Wis. — Law gr. — 219 Ramona, P-p
A.B., California at Los Angeles, 1928; A.M., Stanford, 1929
[23]Hurlbut, Wilbur Bingham — Omro, Wis. — LD 43+41 — 302 Sequoia-*1451*
Hurt, Arthur Curtis, Jr. — Los Angeles — Law gr. — Alpha Sigma Phi-*2518*
A.B., Stanford, 1930
Huston, Raymond — San Francisco — LD 79+26 — Delta Kappa Epsilon
Huxsol, Alfred Russell — Wolf Point,Mont. — Pre-Med. 90·48+36 — 536 Alvarado
Hyde, Cedric Alfred — Visalia — S.Engr. 49·86+53 — 134 Toyon-*2757*
[4]Hylen, Prudence — Susanville — LD ‡ — Roble
[4]Hyman, Arthur S. — San Francisco — Hist. ‡ — Los Altos-Rt.1,Box 439,la
[5]Hyman, Evelyn — San Francisco — LD 45+15 — 242 Roble-*2366*
Imai, Yuji — Santa Barbara — LD 90+116 — Japanese Club-*598*
Inch, Thomas Turner — Los Angeles — Phil. 149+17 — Chi Psi-*1648*
Inge, Martha — Sedalia, Mo. — Soc.S.-Jn. 90·90+66 — PiBt.Phi-*1918*
A.B., Stanford, 1931
Ingebretsen, James C. — Salt Lake City, U. — Law gr. 117Ps.Rbls,LosAltos-*1427*
A.B., Stanford, 1930
Ingersoll, Frank Bassett, Jr. — Manila, P.I. — LD 44–10 — 303 Encina-*2603*
Ingrim, Virginia Claire — Oakland — LD 76+26 — Pi Beta Phi-*1918*
Insley, Edward William — Covina — LD 48+41 — 345 Encina-*31*
Iriki, Walter Keisuke — Oakland — Med. gr. — 1825 Laguna, SF-sf
A.B., Stanford, 1928
Irons, Charles Fraser — Hinsdale, Ill. — LD 45+0 — 348 Encina-*1473*
Irsfeld, James Balthazar — Hollywood — LD 90+29 — Phi Kappa Sigma
Irvine, George William — Mare Island — LD 92+18 — 316 Sequoia-*2122*
Irvine, Richard Fyfe — Beverly Hills — LD 61+4 — Chi Psi-*1648*
Irving, Gordon Leith — Hollywood — Econ. 180+76 — 241 Toyon-*2169*
A.B., Stanford, 1931
[5]Isaacs, John B. — Los Angeles — S.Engr. 175+106 — Theta Chi-*1383*
Isaacson, Charles Baine — Whittier — LD 90+19 — 692 Mirada-*1822*
Isaly, Ruhland Delbert — Mansfield, Ohio — Hist. 135+10 — Phi Gamma Delta
[4]Isensee, Arthur Fredrick — Modesto — Educ. gr. — 559 Cowper, P-p
B.S., Purdue, 1917
Ishigaki, Ernest Isokichi — Terminal — S.Engr. 90·96+12 — Jap. Club-*598*
A.B., Stanford, 1931
Ishikawa, Tokio — San Jose — Pre-Clin. 187+250 — 248Jcksn,SJ-sj
A.B., Stanford, 1931
Isola, Frank — Fresno — S.Bus. gr. — 551 Lytton, P-*870*
A.B., Fresno State College, 1929; M.B.A., Stanford, 1931
[5]Israel, Hugh Rock — Palo Alto — Zoöl. gr. — 813 Cowper, P-p
A.B., Stanford, 1931
[5]Ito, Tomo — Pasadena — Geol.36·108+15 — 1831Wvrly,P-*1280*
[5]Iversen, William Lincoln — Pullman, Wash. — Educ. gr. — Menlo J. C., MP-*974*
A.B., Washington State, 1923; A.M., Stanford, 1930
Iwerks, Franklyn Merrill — Redwood City — LD 51·43+1 — 528 Jackson, RC-rc
Jacks, Hugh Jay — San Francisco — Econ. 118·62+16 — Kingscote-*919*
A.B., Stanford, 1931
[12]Jackson, Elizabeth — Webster Groves, Mo. — Hist. 133+164 — Alpha Phi-*1387*
[4]Jackson, Henry Martin — Everett, Wash. — LD ‡ — Sigma Alpha Epsilon-*1493*
Jackson, Huson T. — Webster Groves, Mo. — LD 47+84 — 45 Encina-*1974*
[3]Jackson, J. W. — Lubbock, Tex. — Pol.S. gr. — 207 Union-*1043*
B.S., Texas Technological, 1929, A.M., 1929
[4]Jackson, Paul T. — Klamath Falls, Ore. — Educ. gr. — 440 Channing, P-p
Ph.B., Linfield, 1921

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|---|---|---|---|
| Jackson, Robert Charles<br>A.B., Stanford, 1929 | Los Angeles | S.Bus. gr. | 738 Guinda, P-p |
| Jackson, Rodney Norris<br>A.B., Stanford, 1931 | San Francisco | Econ. 180+36 | Theta Chi-*1383* |
| Jacobs, Lewis Grant, Jr.<br>A.B., Stanford, 1928 | San Francisco | Med. gr. | 2955 Buchanan, SF-sf |
| Jacobs, Ralph Henry<br>A.B., Stanford, 1931 | Napa | M.E. gr. | 545 Yale, P-*2782* |
| [1]Jacobson, David S.<br>A.B., Stanford, 1930 | Brawley | Hist. gr. | *227* Seale, P-*1664* |
| Jaekle, William Mathew, Jr. | Berkeley | LD 45+8 | 123 Encina-*2664* |
| Jago, Beatrice Ysobel<br>A.B., Stanford, 1931 | Palo Alto | Hist. 184+85 | 2380 Waverley, P-p |
| Jago, John<br>A.B., Stanford, 1930 | Palo Alto | Law gr. | 2380 Waverley, P-p |
| [5]Jahant, Louise | Acampo | Engl. 57-78+141 | 342 Roble-*2514* |
| Jamart, Emile Joseph, Jr. | San Francisco | LD 46–12 | 126 Encina-*2167* |
| Jamart, Gustav Emile Joseph<br>A.B., Stanford, 1931 | San Francisco | S.Engr. 5-189+130 | 214 Seq.-*2167* |
| James, Allan Harris | Montrose | S.Engr. 153+140 | *220* Toyon-*1468* |
| James, Mary Louise | Oakland | Engl. 82+9 | Gamma Phi Beta-*1337* |
| [5]James, Ralph Rutherford | San Luis Obispo | Econ. 164–2 | 146 Toyon-*1855* |
| [12]James, Robert Osmun | Denair | Econ. 117-35+20 | 219 Sequoia |
| [12]James, Wallace John | Salt Lake City, U. | Econ. 90-22–24 | 436 Hamilton, P-p |
| Jameson, Moroni<br>A.B., Stanford, 1929 | Menlo Park | Phyl. gr. | Menlo Park-*2322* |
| [134]Jamison, Jean | Alameda | Econ.124+14 | KappaKappaGamma |
| Janda, Robert Lyon<br>A.B., Stanford, 1928, LL.B., 1931 | Stanford Univ. | Law gr. | 309 Union-*537* |
| [4]Janes, Hattie Elizabeth<br>A.B., Fresno State College, 1927 | Fresno | Educ. gr. | 530 Webster, P-p |
| Janin, Louis Dunbar<br>A.B., Stanford, 1931 | Piedmont | Pol.S. 182+100 | Theta Chi-*1383* |
| [4]Jank, Otto Max<br>Graduate, U.S. Military Academy, 1917 | Washington, D.C. | M.E. gr. | 230 Portola-*1761* |
| [12]Jankiewicz, Harry Anthony<br>A.B., California at Los Angeles, 1929 | Los Angeles | Med. gr. | 2321 Sacramento, SF-sf |
| Jankowsky, Justine | Tulsa, Okla. | LD 45+90 | *223* Roble-*2323* |
| Jeffrey, Robert Elliott, Jr. | Imola | LD 74+34 | 401 Encina-*1193* |
| Jenkins, Herbert William | Palo Alto | LD 45+0 | 303 Encina |
| Jennings, John Paul<br>A.B., Stanford, 1929 | Portland, Ore. | Law gr. | 532 Homer, P-p |
| Jensen, Albert Abe<br>A.B., Stanford, 1930 | Susanville | Educ. gr. | 323 Sequoia-*2487* |
| [234]Jensen, George Alvin | Parlier | S.Engr. 93-48–6 | 363 Melville, P-p |
| [5]Jensen, Walter Neil | Sunnyvale | Phyl. 93-88+23 | Sunnyvale-s |
| Jernegan, John Durnford | Palo Alto | LD 92+123 | 137 Branner-*988* |
| Jespersen, Holger J.<br>A.B., Stanford, 1931 | San Francisco | S.Engr. 90-103+34 | *223* Union-*1127* |
| Jessen, Henry, Jr.<br>A.B., Stanford, 1931 | Council Bluffs, Iowa | S.Eng.135-48+27 | 1506Clge,P-*2644* |
| [3]Johns, Floyd Marion<br>A.B., Kansas, 1909 | Concordia, Kans. | Engl. gr. | 326 Waverley, P-p |
| Johns, Ned Burt | Huntington Park | Educ. 136+65 | Phi Kappa Psi |
| Johnson, Albert Daniel | Phoenix, Ariz. | Pre-Med. 90-48+60 | Delta Chi-*1304* |
| Johnson, Carroll Stange | Evanston, Ill. | Soc.S. 90-45+15 | 855 Waverley,P-p |
| [4]Johnson, Chris Peter<br>B.S., Michigan State College, 1915 | Antioch | Educ. gr. | 557 Lasuen |

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|---|---|---|---|
| [23]Johnson, Cyril Haines | Long Beach | LD 29+0 | 105 Encina-*1206* |
| [23]Johnson, Daniel Harrison | Hollywood | LD 60–2 | 252 Toyon-*2668* |
| Johnson, Dorothy May<br>A.B., Stanford, 1931 | Long Beach | Hist. 90·91+84 | 104 Roble-*2255* |
| Johnson,Edgar Greenwood | Cupertino | LD 87+71 | Delta Tau Delta-*1363* |
| Johnson, Frances Jean | Palo Alto | LD 89+50 | 238 Roble |
| Johnson, Francis Comer<br>A.B., Stanford, 1931 | Menlo Park | S.Engr.5·194+74 | Cmbrdg,MP-mp |
| [5]Johnson, Frederic Albion | Hayward | Geol. 6·172+5 | 135 Toyon-*2181* |
| Johnson, Grant Stillman | Placerville | LD 48+33 | 209 Encina-*2681* |
| Johnson, Grover Christian<br>A.B., Montana, 1926, LL.B., 1926 | Polson, Mont. | Law gr. | 332 Channing, P-p |
| Johnson, Herbert Henry, Jr. | S. Francisco | LD 44+74 | 115 Encina-*1514* |
| [124]Johnson, Hilton O. | San Francisco | LD sp. 101+40 | 306 Toyon-*2682* |
| Johnson, Joseph Dykes<br>A.B., Stanford, 1931 | Taft | Bact. 186+40 | 346 Encina-*2425* |
| [12]Johnson, Joseph Warren | Los Angeles | Pre-Med. 118–15 | Phi Kappa Psi |
| Johnson, Leighton Wayne | Spokane, Wash. | LD 47+29 | 45 Encina-*2185* |
| Johnson, Leland Francis | Los Angeles | Econ. 99+39 | Phi Kappa Psi |
| §[23]Johnson,MauriceChristian | Litchfield,Ill. | LD 58·40+8 | 409 Encina |
| [1]Johnson, Paul Eugene<br>A.B., Minnesota, 1927 | Austin, Minn. | Engl. gr. | Kappa Sigma |
| Johnson, Walter Albert<br>A.B., Stanford, 1928 | Piedmont | Med. gr. | 2180 Washington, SF-sf |
| [4]Johnson, Winifred Bent<br>A.B., Wisconsin, 1917; A.M., Oregon, 1931 | Portland, Ore. | Psych. gr. | 761 Clmba,P-(Sta.A)p |
| [4]Johnston, Dorothy Cameron | Saratoga | LD ‡13+6 | Saratoga Inn, S-s |
| [1]Johnston, Florence Mary | Stanford Univ. | LD 38–3 | 225 Roble-*1132* |
| [23]Johnston, Fred Dean<br>A.B., Stanford, 1931 | Santa Ana | Hist. 180+98 | 145 Hawthorne, P-p |
| [5]Johnston,, Willard S. | San Mateo | Soc.S. 167+99 | 312 Roblar, SM-sm |
| Johnston, William Barksdale<br>A.B., Stanford, 1928, LL.B., 1931 | Fresno | Law gr. | 508 Encina-*1468* |
| Johnston, William Raby | Santa Barbara | LD 48+67 | 128 Encina-*1641* |
| [1]Johnstone, William D.<br>A.B., Stanford, 1931 | Washington, D.C. | Soc.S. 106·75+93 | 129Emrsn,P-*144* |
| [5]Jonasson, Jonas Adalsteinn<br>A.B., Linfield, 1926 | Bow, Wash. | Hist. gr. | *327* Union-*1199* |
| Jones, David Pryce | Phoenix, Ariz. | Soc.S. 90·45+40 | 416 Encina-*849* |
| [1]Jones, George Warren | Durham | Econ.-Acct.‡14–7 | 433 Encina-*1383* |
| Jones, Grenville Carlton<br>A.B., Stanford, 1931 | Santa Maria | Engl. 90·96+43 | Al.KappaLam.-*658* |
| [12]Jones, Herbert Auton | Burlingame | Econ. 90·99–16 | Sig. Al. Eps.-*1305* |
| [4]Jones, John Delos<br>A.B., Fresno State College, 1929 | Berkeley | Chem. gr. | 718 Bryant, P-p |
| [5]Jones, John Paul | Cody, Wyo. | Chem. 4·160+9 | Perry Av., MP-*964* |
| [5]Jones, Joseph Jay<br>B.S., Nebraska, 1930 | Tecumseh, Neb. | Engl. gr. | 1451 Cowper, P-p |
| Jones, Kendall<br>A.B., Stanford, 1931 | Bakersfield | S.Engr.49·132+55 | PhiSg.Kap.-*538* |
| Jones, Madison Ralph, Jr.<br>A.B., Stanford, 1931 | Oakland | S.Engr. 183+118 | 305Branner-*2051* |
| Jones, Marian DeEster | Piedmont | LD 84+20 | Pi Beta Phi-*1918* |
| Jones, Mary Edith<br>A.B., Stanford, 1931 | Palo Alto | Engl. 180+80 | Chi Omega-*724* |

§ Deceased, August 8, 1931.

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| Jones, Nancy Mott | Nevada City | LD 93+57 | Alpha Phi-*1387* |
| Jones, Robert Francis | Lima, Ohio | Pol.S. 107+77 | Delta T. Delta-*1363* |
| Jones, Robert Samuel<br>A.B., California at Los Angeles, 1930 | N. Hollywood | Pol.S. gr. | 525 University, P-p |
| Jones, Ronald E.<br>A.B., Colorado College, 1929 | New Wilmington, Pa. | S.Bus. gr. | 533 Middlefield, P-p |
| [4]deJong, Gerret, Jr.<br>A.B., Utah, 1920, A.M., 1925 | Provo, Utah | Germ. gr. | 240 Cowper, P-p |
| [1]Jongeneel, Johanna | Aptos | LD 65+41 | 304 Roble-*574* |
| Jordan, Donald Weller<br>A.B., Stanford, 1929 | Los Angeles | Law gr. | 544 Coleridge, P-*2316* |
| [5]Jordan, Hugo V. | La Paz, Bolivia | LD 9–18 | 119 Encina-*1953* |
| [4]Jordan, James Wells | San Francisco | LD ‡ | 113 Toyon |
| [1]Jordan, Philip Jerome | San Jose | LD‡15–8 | 316 Encina-*871* |
| Jorgensen, Myrl Hull | Salinas | LD 45+16 | 352 Roble-*1603* |
| Joujon-Roche, Felix | Alhambra | S.Engr. 161+35 | Sigma Chi |
| [5]Juda, Felix Edwin | San Francisco | Econ. 159+179 | 142 Toyon-*2353* |
| [23,4]Juda, Harold Morton | San Francisco | LD 30+23 | 119 Encina-*2353* |
| [4]Julian, John Gordon | San Francisco | LD | 224 Toyon |
| Junkert, William Ernest | Palo Alto | Pre-Clin. 227+56 | 151 Melville, P-p |
| [4]Jurs, Albert E., Jr. | Piedmont | LD | 138 Toyon |
| [12]Jurs, Eugene Ellison | Piedmont | LD 48·46–21 | Kappa Alpha |
| [5]Jurs, Peter C. | Piedmont | Chem. 5·139+183 | Kappa Alpha |
| Jury, Meta Elizabeth<br>A.B., Stanford, 1931 | Palo Alto | Hist.180+160 | KappaKappaGamma |
| Kaar, John Montgomery | Bakersfield | LD 67·51+10 | 1312 Parkinson, P-p |
| Kaehler, Edward Malcolm | Butte City | S.Engr. 152+55 | Phi Sig. Kap.-*538* |
| [12]Kaetzel, Jack Philip | San Luis Obispo | Hist. 105+87 | Theta Chi-*1383* |
| [23]Kagan, Ben Donald | Staten Island, N.Y. | LD 41+2 | 13 Encina-*2117* |
| Kai-Kee, Mark | Palo Alto | LD 98+142 | Sutter Pack. Co., P-p |
| [1]Kail, Kenneth Edwin | Twin Falls, Ida. | Econ.‡10–10 | 330 Waverley, P-p |
| Kaiser, Boynton Swift | Oakland | LD 45+30 | 329 Encina-*961* |
| Kalenborn, Fred Merrill | Redwood City | LD 44+31 | 301 Encina |
| [4]Kaler, James Edward<br>A.B., Stanford, 1929 | Sacramento | Educ. gr. | 555 Lytton, P-p |
| Kaneko, George Kazuto<br>A.B., Stanford, 1931 | Newcastle | Chem. 90·93+61 | Japanese Club-*598* |
| Kantzer, Basil Pocock | Pasadena | LD 47+*22* | 226 Encina-*1823* |
| Karl, Charles Edward | Los Angeles | Pre-Med. 75+12 | *232* Union-*1872* |
| Karmel, H. Burress<br>A.B., Stanford, 1931 | Burlingame | Hist. 182+68 | 216 Toyon-*2757* |
| Karnopp, Karl Wheeler<br>A.B., Stanford, 1931 | Winnetka, Ill. | Span. 103·80+33 | 305 Sequoia-*635* |
| Kartchner, Wayne Elisha<br>A.B., Brigham Young, 1927 | San Jose | Geol. gr. | 470 Hamilton, P-p |
| [1]Katz, Leonid Michael | Harbin, China | LD 0–24 | 250 Encina |
| Katzev, Arthur Johiel | Los Angeles | Econ. 5·135+206 | 207 Branner-*1756* |
| Katzev, Herbert Herman<br>A.B., Stanford, 1931 | Los Angeles | Econ. 182+168 | 207 Branner-*1756* |
| Kaufhold, Hildegarde Euphrosne<br>A.B., Dominican, 1930 | Novato | Cl.Lit. gr. | Sigma Kappa |
| [3]Kaufiers, Walter Vincent<br>A.B., San Diego State Teachers College, 1925; A.M., Stanford, 1929 | La Jolla | Educ. gr. | 302 Toyon |
| Kavanaugh, Charles R.<br>A.B., Stanford, 1928, LL.B., 1931 | Stanford Univ. | Law gr. | 529 Encina |
| Kawaguchi, Tadashi M.<br>A.B., Stanford, 1929 | Shizuoka, Japan | E.E. gr. | Japanese Club-*598* |

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| [1]Kawai, Kazuo<br>A.B., Stanford, 1926, A.M., 1928 | Hyogo-Ken, Japan | Hist. gr. | Japanese Club-*598* |
| Kay, Alfred Ronald | Atherton | LD 46+41 | 248 Encina |
| Kaye, William August | San Francisco | LD 100+194 | 6 Kingscote |
| [4]Kearney, Edward Patrick<br>A.B., San Francisco, 1931 | San Francisco | Engl. gr. | 45 Capp, SF-sf |
| [4]Kearns, Floreen L. | Fresno | LD ‡ | 565 Salvatierra-*955* |
| [5]Keegan, Thomas James<br>A.B., Stanford, 1928 | Palo Alto | Law gr. | 228 Middlefield, P-p |
| Keeler, Fred Elbridge | Mason City, Iowa | Econ.90-51–2 | Theta Delta Chi-*116* |
| [4]Keeler, Leonarde | Berkeley | Psych.14-182–14 | 531Hnver,P-*2206* |
| Keen, AngelineMyra<br>A.B., Colorado College, 1930; A.M., Stanford, 1931 | ColoradoSprgs.Colo. | Psych. gr. | 337 Kipling, P-p |
| [4]Keen, Walter L. | Los Angeles | Econ. 96- | 131 Toyon-*2812* |
| Keenan, Hugh | San Francisco | Econ. 41-113–4 | Delta Kappa Eps. |
| Keenan, Marvin Francis<br>A.B., Stanford, 1930 | Los Olivos | Geol. gr. | 804 Bryant, P-p |
| Keerl, Jack Bradner | Spokane, Wash. | LD 48+32 | 17 Encina-*1617* |
| [5]Keesling, Francis V., Jr.<br>A.B., Yale, 1930 | San Francisco | Law gr. | 818 Cowper, P-p |
| Keesling, James Clarence | San Francisco | LD 82–28 | Sigma Nu-*1385* |
| Kehke, Arthur Ernest | Vallejo | LD 47+38 | 236 Encina-*2757* |
| Keho,KatherineMcCormick<br>A.B., Stanford, 1931 | SanFrancisco | Soc.S. 180+265 | Kap. Kap. Gamma |
| Keipp, James Vernon | Long Beach | LD 94+75 | Al. Kappa Lambda-*658* |
| [12]Kelez, George Bothwell<br>B.S., Washington, 1930 | Seattle, Wash. | Zoöl. gr. | Theta Xi |
| [4]Keller, Milton Powers | Hollywood | LD | 236 Toyon |
| Keller, Richard James | San Gabriel | Pol.S.133+56 | AlphaT.Omega-*1384* |
| Kelley, Eldred Rae | Long Beach | LD 93+11 | Theta Delta Chi-*1828* |
| Kelley, Esther Myrick | St. Paul, Minn. | LD 6-94+98 | Delta Gamma-*1366* |
| Kelley, George Murray<br>A.B., Stanford, 1931 | Grinnell, Iowa | Econ. 135-45+40 | 2105Emrsn,P-*95* |
| Kelley, Gordon<br>A.B., Stanford, 1931 | Fort Smith, Ark. | Soc.S. 100-87+44 | Pi Beta Phi-*1918* |
| Kelley, James A. | Tulsa, Okla. | S.Engr. 142+152 | 302 Toyon-*2801* |
| Kelley, Kenneth<br>A.B., Stanford, 1928 | San Francisco | Pre-Med. gr. | 1340 Byron, P-p |
| Kellogg, Pearson Cameron<br>A.B., Stanford, 1931 | Sacramento | Bact. 90-92+30 | 202 Union-*2406* |
| Kelly, Betty Ann | Redondo Beach | LD 48+56 | 112 Roble-*1933* |
| Kelly, Edith Louise<br>A.B., Stanford, 1911 | Berkeley | Span. gr. 1837 | San Lorenzo, B-*815* |
| Kelly, James Edward | Los Angeles | Econ.-Acct. 118+5 | AlphaT.Omega |
| Kelly, John Thomas<br>A.B., Stanford, 1931 | El Segundo | S.Engr. 181+37 | Sigma Chi |
| Kelly, Marshall Wilton | Placerville | LD 7-118–6 | Kappa Alpha |
| Kemp, Charles Robert | San Francisco | LD 91+44 | 218 Sequoia-*2105* |
| Kempenich, Janet | Piedmont | LD 45+48 | 338 Roble-*2463* |
| Kempenich, Margaret Louise<br>A.B., Stanford, 1931 | Piedmont | Soc.S. 182+201 | Gam.PhiBeta-*1337* |
| Kendall, Burt Charles | San Francisco | S.Engr. 5-133–1 | 224 Toyon-*1855* |
| [1]Kendall, Donald Grant<br>A.B., Stanford, 1931 | Oakland | Pol.S. 180+269 | The.DeltaChi-*1828* |
| Kendall, Gerald Henry S. | Denver, Colo. | Econ. 111 49+25 | 2105Emerson,P-p |
| Kendall, Harry Cole, Jr. | Portland, Ore. | LD 46+9 | 117 Encina-*2466* |
| [1]Kendall, Harry T., Jr. | Kansas City, Mo. | LD 7–21 | 404 Encina-*1502* |

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| Kendall, Nathaniel James | San Francisco | S.Engr. 5·141+61 | 224 Toyon-*1855* |
| [5]Kendrick, Marron | San Francisco | Econ. 5·160+18 | Sigma Nu-*1385* |
| [4]Kennedy, Audley Robert | San Jose | Educ. gr. | 55 S. 6th, SJ-sj |
| A.B., Southwestern University, 1914, A.M., 1914 | | | |
| Kennedy, Donald James | Sacramento | Econ. 90·47+33 | 208 Sequoia-*653* |
| Kennedy,Edward Lauderdale | P.Palisades | Econ. 186+22 | Theta Xi |
| A.B., Stanford, 1931 | | | |
| [12]Kennedy, James Miller | Palo Alto | Econ. 124+48 | 435 Coleridge, P-p |
| Kennedy, Phillip Arnold | Los Angeles | LD 85+79 | 139 Branner-*1209* |
| Kennedy, Richard Roberts | Los Gatos | S.Engr. 94·102+30 | Theta Xi |
| A.B., Stanford, 1931 | | | |
| Kennedy, Ronald Frederic | Spokane,Wash. | LD 9·95+82 | 215 Toyon-*2306* |
| Kenney, John Meredith | San Francisco | Pre-Med.161+48 | Al.Kap.Lam.-*658* |
| Kent, John Russell | S. Pasadena | Soc.S. 90·54+62 | 335 Kipling, P-p |
| [5]Kerner, Frances Xavier | San Francisco | Law gr. | 630 Lincoln, P-p |
| A.B., St. Ignatius, 1929 | | | |
| [12]Kerner,Michael Bernard | NewYork,N.Y. | S.Engr. 103·58–1 | 223 Union-*1027* |
| Kerrigan, Harry Dagdigian | Berkeley | S.Bus. gr. | 506 Mayfield |
| B.S., California, 1928, M.S., 1929; M.B.A., Stanford, 1931 | | | |
| Kertz, Hubert Leonard | San Francisco | S.Engr. 90·29–10 | 309 Sequoia-*878* |
| Ketron, Harold Wayne | Hollywood | Econ. 46·74+12 | BetaThetaPi-*1335* |
| Keyes, George Frederick | Bend, Ore. | LD 45+6 | 40 Encina-*810* |
| [4]Kibby, Leo Paul | Silver City, N.M. | Educ. gr. | Theta Delta Chi |
| A.B., Stanford, 1929 | | | |
| Kidwell, Homer Baird | Inglewood | Pol.S. 90·46+51 | 1465 Webster, P-p |
| [5]Kiech, Veon Carter | Albuquerque, N.M. | Phyl. gr. | 740 Homer, P-p |
| A.B., New Mexico, 1924; A.M., Stanford, 1928 | | | |
| [1]Kier, John Alexander | Menlo Park | Econ. 101·79+19 | 715Vlpso,MP-mp |
| A.B., Stanford, 1931 | | | |
| [12]Killingsworth, Cecil Clair | Whittier | Geol. gr. | 445 Hamilton, P-p |
| A.B., Stanford, 1930 | | | |
| Kimball, Gordon Stanley | National City | E.E. gr. | 335 Union-*501* |
| A.B., Stanford, 1929, Engineer, 1931 | | | |
| Kimball, Judd D. | Walla Walla, Wash. | Law gr. | 327 Waverley, P-*1039* |
| B.S., Whitman, 1929 | | | |
| Kimball, Marshall Jerome | Richmond | E.E. gr. | 109 Sequoia |
| A.B., Stanford, 1929 | | | |
| [4]Kimber, George Card | Sacramento | Educ. gr. | 1421 Waverley, P-p |
| A.B., Stanford, 1920 | | | |
| [4]Kimberlin, Dorotha Electa | San Jose | Educ. gr. | 304 S. 13th, SJ-sj |
| A.B., San Jose State Teachers College, 1931 | | | |
| Kimberlin, Dorothy Emilee | Sacramento | Educ. gr. | Alpha Omicron Pi-*1367* |
| A.B., Stanford, 1930, A.M., 1931 | | | |
| Kimpton, Lawrence | Kansas City, Mo. | Phil. 180+298 | Menlo Heights-*965* |
| A.B., Stanford, 1931 | | | |
| Kincaid, Margaret L. | Champaign, Ill. | LD 90+50 | 308 Roble-*1351* |
| [4]Kincaid, Mary-Joseph | San Mateo | Cl.Lit.‡29+14 | 133 Oregon, SM-sm |
| King, John Bennett | San Francisco | LD 43+32 | 359 Encina |
| [23]King, Joseph Jerome | Salem, Ore. | LD 5·25 19 | 131 Encina-*831* |
| King, Marialice Patricia | San Jose | LD 90+123 | Kappa Alpha Theta |
| [12]King, Robert Shaw | Palo Alto | LD 75+61 | 536 Lowell, P-p |
| King, Robert William | San Francisco | LD 86+4 | 536 Alvarado-*1462* |
| [12]Kingsbury, Carl William | Oakland | Phys. 90·29–1 | 601 Webster, P-p |
| Kinkead, Donald | Cupertino | LD 90–1 | Cupertino-Box 280, c |
| Kinkead, James Alan, Jr. | Cupertino | S.Engr. 206+62 | Cupertino-c |
| Kinne, Geraldine Schaefer | St. Louis, Mo. | Hist. 10·191+91 | Delta Gamma |
| A.B., Stanford, 1931 | | | |

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| Kinney, Edward E. | Albuquerque, N.M. | LD 17·75+25 | Theta Chi-*1383* |
| [1]Kirchen, Harold W. | Great Falls, Mont. | Geol. gr. | 176 Bryant, P-p |
| Ph.B., Wisconsin, 1929 | | | |
| Kirkish, Fred John | Sunnyvale | Chem. gr. | 429 S. Francis, S-s |
| A.B., San Jose State Teachers College, 1930; A.M., Stanford, 1931 | | | |
| Kirkpatrick, Roger K. | Salt Lake City, U. | Geol. 93·102+116 | 417 Encina-*72* |
| A.B., Stanford, 1931 | | | |
| Kirsten, Paul Philip | Findlay, Ohio | LD 46·44+54 | 345 Encina-*1455* |
| [5]Kirwan, Gerald M. | Palo Alto | Geol. gr. | 1130 Bryant, P-p |
| Engineer, Montana State School of Mines, 1922 | | | |
| [4]Kistler, Herbert Donald | Butte, Mont. | Law gr. | 219 Toyon-*1277* |
| A.B., Princeton, 1930 | | | |
| [2]Kitagawa, Frank K. | Los Angeles | LD 87–*22* | Japanese Club-*589* |
| Kite, Walter Edwin | Palo Alto | LD 87+51 | 544 Webster, P-p |
| [1]Klabau, Theodore Albert | Newton, Kans. | S.Engr. 203+*32* | Sigma Chi-*628* |
| A.B., Stanford, 1931 | | | |
| Klauber, Alice Gould | San Diego | LD 46+30 | *357* Roble-*1842* |
| [4]Kleffman, Helen Jeanette | Long Beach | LD ‡ | Roble |
| [4]Klein, Joseph Robert | San Bernardino | Educ. gr. | 764 Channing, P-p |
| A.B., Redlands, 1931 | | | |
| [4]Klein, Paul Eugene | San Diego | Educ. gr. | 855 Channing, P-p |
| Ph.B., Chicago, 1920 | | | |
| [13]Klein, Ralph Elmer | Medford, Ore. | Econ.-Acct. 90·25+5 | 203 Seq.-*1117* |
| Klein, Russell Ronald | San Francisco | Pre-Med. 137+145 | Theta Xi |
| [34]Kleinbach, Henry | Glendale | Germ. 111–12 | Alpha Sig. Phi-*1357* |
| [4]Kleinsorge, Paul Lincoln | Sacramento | Educ. gr. | 209 Union |
| A.B., Stanford, 1927 | | | |
| Klepinger, Idamyrtle | Los Angeles | LD 48+51 | 355 Roble-*1932* |
| [34]Kloster, Pearl Rebecca | Buxton, N.D. | Ed.-G.A. gr. | 270 Roble-*1189* |
| B.S., North Dakota, 1926 | | | |
| [12]Knaebel, Charles Pray | Washington, D.C. | Min. gr. | *227* Sequoia-*1996* |
| B.S., Yale, 1929; Engineer, Stanford, 1931 | | | |
| [23]Knapp, Helen Mildred | Berkeley | S.Biol.96·84+104 | 853Mddlfld,P-p |
| A.B., Stanford, 1931 | | | |
| Knapp, Joseph Burke | Portland, Ore. | LD 95+138 | Sigma Nu-*1385* |
| Knapp, Stanley Moser | Eugene, Ore. | Chem. gr. | 425 N. 14th, SJ-sj |
| B.S., Oregon, 1920 | | | |
| [4]Knappen, James Fawcett | Campbell | Econ. gr. | 633 Seneca, P-p |
| A.B., Stanford, 1923 | | | |
| Kneass, Adrienne Rooker | Hillsborough | Pol.S. 90·45+48 | 321 Roble |
| Knecht, Carl John | Los Angeles | LD 44+11 | 219 Encina-*2011* |
| Kneisley, Philip Henry | Los Angeles | LD 41+10 | 250 Encina-*683* |
| [4]Knight, Alma Boyd | San Francisco | LD ‡ | 148 Roble |
| Knight, A. Rowland | Redlands | Pol.S. 94·88+78 | 215 Sequoia-*2225* |
| A.B., Stanford, 1931 | | | |
| [4]Knoles, George Harmon | Stockton | Hist. gr. | 208 Escobita, P-p |
| A.B., College of the Pacific, 1928, A.M., 1930 | | | |
| Knopp, Grace | Eugene, Ore. | Span. gr. | Madroño-*56* |
| A.B., Oregon, 1920; A.M., Stanford, 1930 | | | |
| [4]Knott, Wallace Widnell D. | Victoria, B.C. | Educ. gr. | 763 Homer, P-p |
| A.B., British Columbia, 1928 | | | |
| Knox, Franklin Leonard, Jr. | Hollywood | Law gr. | Los Altos-*1942* |
| A.B., California at Los Angeles, 1929 | | | |
| [12]Knox, John Clay | Waterloo, Iowa | Soc.S.-Jn.40·138–4 | T.D.Chi-*2432* |
| Knox, Lawrence H. | New Bedford, Mass. | Chem. gr. | 443 Fulton, P-p |
| B.S., Bates, 1928; A.M., Stanford, 1931 | | | |
| Knox, Newton Booth | London, England | Soc.S. 180+194 | 406 Sequoia-*2161* |
| A.B., Stanford, 1931 | | | |

[5]Koch, Karl William — Sacramento — Econ. gr. — 553 Encina
B.S., California, 1921
[24]Kocher, Paul Harold — Brooklyn, N.Y. — Engl. gr. — 539 Encina-*1078*
A.B., Columbia, 1926; J.D., Stanford, 1929
Kofahl, Sally Ruth — Fellows — Hist. 90·47+54 — 324 Roble-*2046*
[4]Kohner, Herbert W. — Santa Clara — Educ. gr. — SC-Rt. 1, Box 129, sc
A.B., San Jose State Teachers College, 1931
Kolliner, Max Grafner — Stanford Univ. — Econ. 90·91+105 — 774 S. Ynez-*1465*
A.B., Stanford, 1931
[1]Korenaga,George Jutaro — Vancouver,B.C. — S.Bus. gr. — Japanese Club-*598*
A.B., British Columbia, 1929
[12]Kramer, Rex Willard — Pendleton, Ore. — Law gr. — *227* Sequoia-*994*
A.B., Stanford, 1929, LL.B., 1931
[2]Krause, Robert Edwin — Long Beach — Law gr. — *27* Encina Ave., P-*2665*
A.B., Stanford, 1929
Krausi, George Bailey — Pasadena — S.Bus. gr. — 1020 Bryant, P-*22*
A.B., Stanford, 1929
Krieger, Alex Donald — South Pasadena — LD 48+17 — 121 Encina-*1116*
Kroeger, Arthur — Fullerton — Soc.S. 190+357 — 331 Encina-*695*
A.B., Stanford, 1931
[5]Kropp, Donald Joseph — San Francisco — Law gr. — *225* Sequoia
A.B., Stanford, 1926
[4]Kropp, Miriam Thérèse — San Francisco — LD — 257 Roble-*594*
[4]Kropp, Walter John — Santa Clara — Math. — Univ. Santa Clara, SC-sc
A.B., Gonzaga, 1930, A.M., 1931
[5]Krous, George Taylor — Pullman, Wash. — Educ. gr. — 1044 High, P-p
A.B., Washington State, 1921, A.M., 1928
Krug, Norval Blackman — South Pasadena — LD 73+0 — Theta Xi
Krumbein, William Justus — Portland, Ore. — S.Engr. 114–3 — Delta Chi-*1304*
Krupp, Marcus Abraham — Miami, Ariz. — LD 46+68 — *236* Encina-*1523*
[4]Kruse, Mary Margaret — Enid, Okla. — Hist. gr. — 536 Alvarado
A.B., Wisconsin, 1928
[5]Ku, Tsung Ying — Peiping, China — Pol.S. gr. — 665 Hanover, P-*2431*
A.B., Stanford, 1931
Kuchman, Carl — Sacramento — LD 95+39 — Sigma Chi
[5]Kuechler, Henry Norbury, Jr. — San Rafael — LD 76+23 — Zeta Psi-*B*
Kuechler, Lawrence Foster — San Rafael — LD 44+65 — 330 Encina-*2021*
Kuhn, Charles Bowman — San Francisco — Econ. 127+132 — Phi Gamma Delta
[12]Kullmann, Leonard, Jr. — San Francisco — Soc.S. 22·159+76 — 111 Toyon-*2665*
A.B., Stanford, 1931
Kunau, John Alfred — Clinton, Iowa — Law gr. — 800 Cowper, P-p
B.S., Iowa, 1930
[4]Kuney, Edith Carter — Corvallis, Ore. — Fr. gr. — Madroño-*2135*
A.B., Willamette, 1909; A.M., Stanford, 1925
[2]Kurtz, Charles Jewett — Columbus, O. — S.Engr. 95·14+11 — 543 Byron, P-p
Kusumoto, Niroku Howard — Gilroy — Med. gr. — 2055 Bush, SF-sf
A.B., Stanford, 1930
Kutsche, William T. — Grand Rapids, Mich. — Econ. 90·49+30 — 2360 Tasso, P-p
Kyle, James William — Auburn — Econ. 90·44–5 — 506 Mayfield-*2793*
Laborde, Henri John — San Francisco — LD 84+10 — Zeta Psi-*B*
[1]LaBrie, Joseph Damase — Kansas City, Mo. — LD 60·39–35 — Delta Kappa Epsilon
[4]Lacayo, Heberto — Los Angeles — Span. gr. — 174 Tasso, P-p
B.S., Institute Nacional de Oriente, 1922; A.M., Southern California, 1930
[4]Lackey, Ralph Leroy — Elma, Wash. — Educ. gr. — 564 Mayfield-*538*
B.S., Whitman, 1925
[4]LaCombe, Emile Albert — Palo Alto — LD ‡ — 544 Forest, P-p
[4]LaFargue, Thomas Edward — Monterey — Hist. gr. — 123 Toyon-*90*
A.B., California, 1925, A.M., 1926

Laidlaw, Gertrude Sausalito Hist. 180+50 Kappa Alpha Theta
A.B., Stanford, 1931
[1]Laird, William Harrison Los Angeles Pol.S. 190+72 235 Embredro, P-*B*
A.B., Stanford, 1931
[4]Lamb, Mariet Grey Los Angeles Engl. gr. Roble-*2411*
A.B., Wisconsin, 1926
[4]Lambert, Asael Carlyle Provo, Utah Educ. gr. 235 Union-*1133*
B.S., Brigham Young, 1926, M.S., 1926
[14]Lambert, Thomas Ben Tulsa, Okla. S.Engr. 105+80 138 Toyon-*2613*
Lambie, Charles A., Jr. Phoenix, Ariz. LD 44+8 410 Encina-*1584*
[4]Lamson, David Albert Stanford Univ. Soc.S.-Jn. gr. 622Salvatierra-*3001*
A.B., Stanford, 1925
[12]Land, William Brooke Oroville Ed.-G.A.30-150+26 Al.K.Lam.-*658*
A.B., Stanford, 1931
Lane, Carl Deal Rocky Ford, Colo. Chem. 90-46+34 416 Encina-*2261*
Lane, Henry John Eureka Phyl. 183+11 Phi Kappa Sigma
Lane, Josephine Olga Palo Alto Ed.-G.A. 180+228 840 Bryant, P-p
A.B., Stanford, 1931
[4]Lang, George W., Jr. Lovelock, Nev. Educ. gr. 311 Union-*595*
B.S., Nevada, 1930
Lang, John Henry San Mateo Hist.180+127 710W.Pplr,SM-sm
A.B., Stanford, 1931
Langford, Roy Clinton Manhattan, Kans. Psych. gr. 333 Lincoln, P-p
B.S., Kansas State Agricultural, 1925, M.S., 1926
Langstaff, Clarence Heald Pasadena Law gr. 207 Union-*106*
A.B., Stanford, 1928
[12]Lapachet, Bernard Kenny San Francisco Law gr. Kappa Alpha
A.B., Stanford, 1930
[23]Larsen, Arthur Christian San Francisco Mil.S. 5-187–2 441 Foothill
[12]Larsen, Christian L. Rochester, Wash. Law gr. 612 Waverley, P-p
A.B., Nebraska, 1930
Larsen, Leonard Hans Sanger Med. gr. 2515 Sacramento, SF-sf
A.B., Stanford, 1929
Larsh, Elisabeth San Francisco Engl. 193+238 Del. Del. Del-*1325*
A.B., Stanford, 1931
Larson, Benjamin Edward Palo Alto Educ. gr. 634 College, P-p
B.S., Linfield, 1922; A.M., Stanford, 1931
[2]Lasell, Donald Widney Lodi S.Engr. 186+78 419 Encina-*2413*
A.B., Stanford, 1931
[23]Lathers, O. Gladys Palo Alto Educ. gr. 1010 Bryant, P-p
A.B., Reed, 1919; M.S., Washington, 1927
Latimer, George Andrew Osage, Ia. LD 79+32 Phi Kappa Psi
Laubhan, Roy Ken Fresno LD 58+32 123 Encina-*1622*
[4]Laughlin, Norman James Live Oak Educ. gr. Kingscote
B.S., Oregon Agricultural, 1924, M.S., 1925
[5]Laughlin, Robert J. San Francisco Econ. 123+83 238 Branner-*1268*
Lauritzen, John Barker Salinas Law. gr. 334 Encina-*2802*
A.B., Stanford, 1929
Lavender, Dwight Garrigues Denver, Colo. LD 48+54 406 Encina-*1736*
LaVenture, Mary Louise Palo Alto LD 45+57 1155 Lincoln, P-p
Lawler, Jane Carmel LD 42+26 162 Roble-*1694*
[1]Lawless, Harold Edward Livermore Educ. gr. 521 Lasuen
A.B., San Jose State Teachers College, 1926
Lawrence, Robert H. San Fernando Pol.S. 45-92+57 524 Encina-*1232*
Lawry, Edwin Vance Palo Alto Phyl. 180+110 1129 Cowper, P-p
A.B., Stanford, 1931
Lawry, George Voris Palo Alto S.Engr. 46-135+14 1129 Cwpr, P-p
A.B., Stanford, 1931

[4]Lawson, Oliver Crook — Oakland — Educ. gr. — 627 Homer, P-p
A.B., Stanford, 1926, A.M., 1929
Lawton, M. Elisabeth — Oakland — LD 98+144 — 230 Roble-*1652*
[4]Layman, Donald Leigh — Honolulu, T.H. — Cl.Lit. gr. — 326 Union
A.B., Hawaii, 1931
Layne, Henry Marion — Whittier — S.Engr.93·88+98 — Mil.Ac.,MP-*1263*
A.B., Stanford, 1931
[1]Lazarus, Ralph Edward — Los Angeles — LD 89+108 — 119 Toyon-*1793*
Leach, Charles Wendell — Los Angeles — Med. gr. — Lane Hospital, SF-sf
A.B., Southern California, 1927
[4]Leak, Ora Marie — Penryn — Educ. gr. — 249 Roble
A.B., College of the Pacific, 1923
Lean, Richard Gerichs — San Jose — Law gr. — 427 Webster, P-*658*
A.B., Stanford, 1930
[4]Learnard, Mary — Gilroy — Educ. gr. — 637 Alvarado
A.B., Stanford, 1923
[4]Lease, Leland Jacob — Glendale — Educ. gr. — 147 Emerson, P-p
A.B., Ohio Wesleyan, 1920
Leavell, Charles Henry, Jr. — El Paso, Tex. — LD 93+30 — Alpha Tau Omega-*2324*
[12]Leavitt, John Wheeler — San Francisco — LD 78–6 — 678 Mirada-*2376*
Lebenbaum, Paul, Jr. — San Francisco — LD 48+57 — 320 Encina
Lebron, Harvey — New York, N.Y. — Pol.S. gr. — 114 Circle, P-p
A.B., Temple, 1912; A.M., Pennsylvania, 1914
[5]Lechich, George Paul — Hermon, N.Y. — Geol. 105–10 — 499 Governors
[5]Lechten, A. Madeleine — Menlo Park — Educ. gr. — Menlo Park-Bx 186, mp
A.B., Stanford, 1923, A.M., 1931
[34]Lee, Charles Henry, Jr. — Hollywood — LD 69+24 — Alpha Delta Phi-*J*
Lee, Clarence Michael — Detroit, Mich. — Econ.90·90+5 — Sig.Al.Epsilon-*1305*
A.B., Stanford, 1931
Lee, Green Moren — London, Ky. — Pol.S.(Ind.StyPln) 105Bran.-*1254*
Lee, Harry Anderson — Santa Monica — Econ. 41·140+27 — Zeta Psi-*B*
A.B., Stanford, 1931
Lee, Lewis Cathie — Auburn — Pol.S. 145–16 — Sigma Nu-*1385*
[1]Lee, Quong Lun — Palo Alto — S.Bus. gr. — 163 Park Blvd., P-p
A.B., California, 1927
[4]Lee, Robert — Oakland — Educ. ‡ — 935 Ramona, P-p
Lee, Robert C. H. — Honolulu, T.H. — Phys.S. 112·31+27 — 501 Encina-*1228*
[4]Lee, Wei-Yuan — Szechuan, China — Educ. gr. — 435 Bryant,P-*2263*
A.B., California, 1931
[4]LeFevre, Rene Paul — Santa Barbara — Educ. gr. — 195 Park, P-p
A.B., Santa Barbara State Teachers College, 1925
LeFurgey, Jules Osborne — San Francisco — LD 54+12 — 430 Stanford, P-*618*
[12]Leggett, Elizabeth Marion — Atherton — LD 80+5 — Chi Omega
[3]Lehman, Arnold John — San Francisco — Pharm. gr. — 2351 Wash., SF-sf
B.S., Washington, 1925, M.S., 1926, Ph.D., 1930
[4]Lehman, Harold T. — Magdalena, N.M. — Educ. gr. — 828 Cowper, P-p
A.B., Kansas, 1925, A.M., 1929
Lehmann, Matt — Oxnard — S.Engr.21·159+23 — 137Branner-*693*
A.B., Stanford, 1931
[4]Lehmann, Otto Lee — Taft — Hist. gr. — 625 Middle, MP-mp
A.B., California, 1926
[4]Lehr, John William — Los Altos — Educ. gr. — Los Altos-Rt.1,Bx349,la
A.B., Stanford, 1929
[12]Leib, Charles Bennett — San Jose — Econ. 121+98 — Zeta Psi-*B*
Leib, Mary Sandilands — San Jose — Pol.S. 131+173 — Kap. Kap. Gamma
Leib, Sam Franklin — San Jose — Econ. 138+29 — Zeta Psi-*B*
Leiser, Edwin Glen — San Francisco — Econ. 135·47+18 — 171 Evrtt, P-*924*
A.B., Stanford, 1931

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|---|---|---|---|
| Leistner, George Washington | Stockton | LD 46+6 | 229 Encina-*94* |
| Leistner, Mary Lou | Stockton | Engl.-P.Sp.6·132+113 | Al.Phi-*1387* |
| Leland, George Reardon | Douglas, Ariz. | LD 87–4 | Delta Tau Delta-*1363* |
| [5]Leland, John Augustine | Berkeley | S.Biol. 129·48–3 | 237 Toyon-*2251* |
| Lemmon, Allen Bosley, III<br>A.B., Stanford, 1930 | Palo Alto | C.E. gr. | 1116 Ramona, P-p |
| Lemmon, Dwight Moulton | Palo Alto | Geol. 140+174 | 1116 Ramona, P-p |
| [3]Lenn, Ernest Selig | San Francisco | Soc.S.-Jn. 103·16+7 | 202 Sequoia |
| Leonard, Burrel<br>A.B., Stanford, 1931 | Cupertino | Soc.S. 189+186 | 365 Guinda, P-*2178* |
| Leonard, John Rollin<br>A.B., Stanford, 1924 | Stanford Univ. | Econ. gr. | 403 Sequoia |
| [12]Leone, Deane Allen | Los Angeles | Pre-Med. ‡ 7–44 | 146 Tasso, P-p |
| [1]Leong, Bing Chew | Hong Kong, China | LD | 635 Bryant, P-*1038* |
| Leonhart, Earnest Eugene<br>A.B., Stanford, 1931 | Piedmont | Econ. 89·92+14 | Delta Chi |
| [1]Lercari, David Joseph | Calistoga | LD 5·85–13 | 247 Branner-*2118* |
| Lerrigo, Frank Charles<br>A.B., Stanford, 1928, LL.B., 1931 | Stanford Univ. | Law gr. | 309 Union-565 |
| Leschke, Hans Helmut | San Francisco | LD 54–5 | 249 Encina |
| [2]Lesley, Everett Parker,Jr. | StanfordUniv. | LD 16+1 | 582 Alvarado |
| §[1]Leuenberger, William A. | Tacoma,Wash. | Econ. 88·13+3 | 436 Encina-*93* |
| Leung, Ping Kei<br>A.B., Lingnan, 1929; M.B.A., Stanford, 1931 | China | S.Bus. gr. | Chinese Club-*824* |
| Levi, Leon Herman<br>A.B., Stanford, 1928, LL.B., 1931 | Los Angeles | Law gr. | 227 Seale, P-*2003* |
| Levis, Orin Charles, Jr. | Long Beach | S.Engr. 48·86+6 | 204 Toyon |
| Levy, Adolph Haffenberg<br>A.B., Stanford, 1928, LL.B., 1931 | Los Angeles | Law gr. | 1560 University, P-p |
| [13]Lewis, Betty Albion | Los Angeles | LD 29+26 | Roble |
| Lewis, Charles Philip<br>A.B., Stanford, 1931 | Lakeport | Soc.S.90·96+29 | MenloS.,MP-*2572* |
| Lewis, Earl Leonard | Soledad | LD 84+10 | 238 Branner-*1275* |
| [4]Lewis, Garfield Orr<br>B.S., Oregon Agricultural, 1921, B.S. (Voc. Ed.), 1922 | Oakland | Educ. gr. | 202 Union |
| [23]Lewis, John Roger | Los Angeles | LD 34+32 | 139 Encina-*576* |
| Lewis, Laurel Jones | Visalia | LD 99+87 | 116 Branner-*2307* |
| [3]Lewis, Marian Winsor | Los Angeles | Hist. 105+119 | Kappa Alpha Theta |
| [5]Lewis, Peter DeLancey | Menlo Park | Econ. 133–4 | Beta Theta Pi-*1335* |
| Lewis, Ralph Charles<br>A.B., Occidental, 1926 | Burlingame | Med. gr. | 1429 Bellevue, B-b |
| [12]Lewis, Robert Porter<br>A.B., Stanford, 1931 | Phoenix, Ariz. | Econ. 180+141 | Beta Theta Pi-*1335* |
| Lewton, Betty | Berkeley | LD 92+112 | Delta Gamma-*1366* |
| [3]Ley, Marjorie Marie<br>A.B., Stanford, 1930, A.M., 1931 | Hollister | Math. gr. | 368 Roble-*1124* |
| [5]Liang, Chih-Chang<br>A.B., Stanford, 1931 | Peking, China | Pol.S. gr. | Chinese Club-*2029* |
| Liang, Hua Yen<br>A.B., Peiping National Normal University, 1930 | China | Pol.S. gr. | 391 College, P-*2593* |
| [5]Liang, Poe<br>B.S., Tsing Hua University, 1930; A.M., Stanford, 1931 | Peking, China | Chem. gr. | Chinese Club-*2029* |
| [5]Lieber, Louis C., Jr. | Los Angeles | Econ. 167+73 | Alpha Delta Phi-*J* |
| [4]Lighty,Stanley James<br>A.B., Jamestown, 1927 | BelleFourche,S.D. | Educ. gr. | 415 Lytton, P-p |

§ Deceased, December 19, 1930

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|---|---|---|---|
| [12]Likens, George Barry<br>A.B., Stanford, 1930 | San Francisco | Law gr. | 228 Union-*80* |
| Lilienthal, Ernest Reuben<br>A.B., Stanford, 1931 | San Francisco | Hist. 184+182 | 235 Toyon-*117* |
| Lillie, Raymond Fell<br>A.B., Stanford, 1929, A.M., 1931 | Palo Alto | Germ. gr. | 219 Ramona, P-*2751* |
| [4]Lindahl, Glenn Wilbert<br>B.S., Kansas State Teachers College, 1928 | San Diego | Educ. gr. | 17 Toyon-*37* |
| Lindelof, George Edward, Jr.<br>A.B., California at Los Angeles, 1929 | Hawthorne | Law gr. | 521 Encina-*864* |
| Linden, John Frederic | San Mateo | Econ. 88·57–3 | 131 Branner |
| [1]Linden, Leonard Robert<br>A.B., Stanford, 1931 | San Mateo | Ed.-G.A.180+77 | Hllsbrugh,SM-sm |
| Lindman, Ray Hammond<br>A.B., Stanford, 1931 | Santa Ana | Soc.S.-Jn.(Ind.St.Pln)311 | Un.-*531* |
| [1]Lindow, Jack Henry<br>A.B., Stanford, 1930 | San Francisco | S.Bus. gr. | Phi Sigma Kappa-*538* |
| Lindquist, Alfred Henry<br>A.B., Stanford, 1931 | Los Gatos | S.Engr. 90·90+25 | 427 Encina |
| [4]Lindsay, Charles Hunter | Evanston, Ill. | S.Engr. 25·96–34 | Del.T.Del.-*1363* |
| [1]Lindsay, Thomas Irwin<br>A.B., Stanford, 1929 | San Jose | Econ. gr. | 329 Union |
| [5]Lindsey, Hugh Miller<br>A.B., Stanford, 1925, A.M., 1929 | Palo Alto | Law gr. | 537 Bowdoin, P-p |
| [5]Lindsley, Fred Van Sant | Oakland | S.Engr. 117+24 | Phi Kappa Sigma |
| Lindstrom, Charles W. | Tacoma, Wash. | Ed.-G.A. 137+135 | 730 Santa Maria |
| [4]Lindstrom, Elmer John<br>A.B., California, 1928 | San Jose | Econ. gr. | 207 Union |
| [5]Linfesty, John William | Long Beach | Bact. 90·79–9 | 1612 Calif., P-*1197* |
| Linn, Carl Barnes<br>B.S., Nebraska, 1929 | Lincoln, Neb. | Chem. gr. | 865 Hamilton, P-*110* |
| Linton, C. McClelland | Los Angeles | Econ. 139+57 | Chi Psi-*1648* |
| Lippman, Robert Weiler | Whittier | LD 100+167 | 441 Foothill-*1108* |
| Lipscomb, John Pleasant | Portland, Ore. | LD 42+52 | 327 Encina-*1456* |
| Lipsitch, Lester Samuel | Los Angeles | LD 95+92 | 206 Branner-*958* |
| Lissner, Aline Mathilda | Los Angeles | Pol.S.(Ind.Stdy Pln)202 | Roble-*673* |
| Lites, Arthur Presley | Palo Alto | Soc.S.-Jn.134+121 | 465 Shrdn,P-p |
| Little, Walter B. | Tacoma, Wash. | S.Engr. 51·93+130 | 202 Branr-*631* |
| Little, William Lawson, Jr. | Cheyenne, Wyo. | LD 43+3 | 353 Encina-*1852* |
| [5]Littlefield, Marion Virginia<br>A.B., Stanford, 1931 | San Mateo | Pol.S. gr. | Alpha Omicorn Pi-*1367* |
| Liu, Henry Chao<br>A.B., Stanford, 1930 | Hupeh, China | Educ. gr. | 501 Encina-*24* |
| [12]Liu, Ming Yueh<br>A.B., Peking National Normal University, 1926; A.M., Stanford, 1931 | China | Educ. gr. | Chinese Club-*1010* |
| Livermore, Norman Banks | Ross | LD 89+64 | Alpha Delta Phi-*J* |
| Livingstone, John Roger<br>A.B., Stanford, 1931 | Willits | Hist. 18·164+81 | 129 Emerson, P-p |
| [12]Livingstone, Stanley Colby<br>A.B., Stanford, 1930 | San Diego | S.Bus. gr. | Kappa Alpha |
| [3]Lloyd, Alice Catherine | San Mateo | Econ. 108·17–1 | Roble |
| Lloyd, Francis Vernon, Jr. | Santa Barbara | LD 92+41 | 692 Mirada-*1857* |
| [1]Lloyd, Prescott Rees | Palo Alto | Bact. 90·57+37 | 111 Lowell, P-p |
| Lloyd, Virginia Beryl | Denver, Colo. | Span. 117·46+34 | 168 Roble |
| Lo, Chen Cho<br>A.B., Stanford, 1931 | Hunan, China | Econ. 90·90+33 | Chinese Club-*2234* |
| Lo, Wen Ching<br>A.B., Stanford, 1931 | China | Psych. 90·79+15 | 245 Rmna, P-*2424* |

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| van Löbensels, Maurits Just | Borden | S.Engr. 124+17 | Delta Chi-*1301* |
| Lockett, Rowena Ruth<br>A.B., Stanford, 1931 | Alhambra | Engl. 181+80 | Delta Gamma-*1366* |
| Lockey, Janet | Palo Alto | LD 81+59 | Kappa Alpha Theta |
| Loeb, Margaret | Los Angeles | LD 50+81 | 314 Roble-*819* |
| Loewy, David John | Whipple, Ariz. | LD 95+115 | 226 Toyon-*1225* |
| [23]Lo Forti, Robert Vernon | Fresno | LD 44–5 | 137 Encina-*1270* |
| Logan, Glen Earnest<br>A.B., Stanford, 1931 | Los Angeles | S.Engr. 194+60 | Delta Chi-*1304* |
| [5]Logan, Harry Lee | Colton | Pol.S. 147+168 | Delta Chi-*1304* |
| Logan, Jack Pollock | Tooele, Utah | LD 58+38 | 405 Encina-*142* |
| Logie, Ruth Murray<br>A.B., Stanford, 1931 | Phoenix, Ariz. | Engl. 43·139+46 | Chi Omega |
| [5]Lohman, John Holt | Los Altos | LD 45+41 | 318 Encina |
| [23]Lomax, Frances H.<br>A.B., Stanford, 1931 | Broken Bow, Neb. | Soc.S. 46·136+68 | 205 Roble-*605* |
| Lombardi, Frank Palmer | Culver City | LD 98+27 | Delta Tau Delta-*1363* |
| Lombardi, Renato<br>Dr. Civ. Engr., Royal School of Engineering of Rome, 1928; Engineer, Stanford, 1931 | Rome, Italy | E.E. gr. | 213 Union-*859* |
| [12]London, Clifford Ellsworth | Westwood | S.Engr.90·66–15 | Al.Kap.Lam.-*658* |
| Long, Charlotte Jeanne<br>A.B., Stanford, 1931 | Stanford Univ. | Span. 181+248 | Del. Del. Del.-*1325* |
| [4]Long, Frederick Ellis<br>B.S., Montana State College, 1927 | Velva, N.D. | Educ. gr. | 25 Union |
| [34]Long, Herbert Malcolm | San Francisco | LD 62+5 | Kappa Alpha |
| Long, John Townsend<br>A.B., Stanford, 1929, LL.B., 1931 | Palo Alto | Law gr. | 505 Cornell, P-(Sta.A)p |
| [4]Long, Mildred<br>A.B., Colorado College, 1916 | Pomona | Cl.Lit. gr. | 337 Kipling, P-p |
| [4]Longfellow, Joseph T.<br>B.S., Washington State, 1915 | LaGrande, Ore. | Educ. gr. | 356 Addison, P-*2712* |
| Loofbourow, Elisabeth Emeline | Berkeley | Zoöl. 105·42+57 | 302 Roble-2158 |
| [12]Loofbourow, Robert Lincoln<br>A.B., Stanford, 1929, Engineer, 1931 | Berkeley | Min. gr. | 346 Encina-*2158* |
| Loomis, Joseph Vard | Arroyo Grande | Pol.S. 167+42 | 113 Encina-*2665* |
| [12]Looney, William Matthew | Santa Clara | Soc.S.90·51–14 | 165Hndsn,SC-*1056* |
| [4]Loos, Mary Anita | Los Angeles | LD ‡ | 203 Roble-*2218* |
| [4]Lorig, Arthur Nicholas<br>A.B., Wisconsin, 1922 | Los Angeles | Econ. gr. | 322 Union-*847* |
| Lorton, Paul Vernon<br>A.B., Stanford, 1931 | San Mateo | Soc.S.-Jn.90·90+115 | 216Toyon-*125* |
| [12]Love, Carleton Ferrier | Watsonville | Chem. 90·72–1 | 563 Encina-*1172* |
| [1]Love, John William<br>A.B., Occidental, 1930 | Chatsworth | M.E. gr. | 258 Toyon |
| [31]Lovelace, Carolyn Grossmann<br>A.B., Stanford, 1927 | Pasadena | Fr. gr. | Madroño-*1325* |
| Low, Duncan Douglas<br>A.B., Stanford, 1930 | Palo Alto | Law gr. | 509 Coleridge, P-p |
| Low, Remington Milner | Portland, Ore. | LD 40+9 | 117 Encina-*1354* |
| Lowe, Kales Eldon | Burley, Ida. | Hist. 145+29 | 104 Branner-*2168* |
| Lowry, Samuel Smith, Jr. | Blairsville, Pa. | LD 28+31 | 107 Encina-*1587* |
| Lowson, Jack Marnie | Hilo, T.H. | Chem. 110+17 | Theta Del. Chi-*1237* |
| [5]von Lubken, Philip<br>A.B., Whitman, 1927 | Stanford Univ. | Math. gr. | 306 Union-*1861* |
| Lucas, Carl Dunn | Hollywood | Econ. 98–6 | Alpha Delta Phi-*J* |
| Lucas, Harold Donald<br>B.S., Minnesota, 1930 | Bismarck, N.D. | S.Bus. gr. | 838 Cowper, P-p |

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| [5]Lucas, Russell Stillwell | Richmond | Econ. 122+95 | 238 Branner-*2128* |
| Luce, Raymond Fredric<br>A.B., Stanford, 1931 | San Francisco | Econ. 5·179+11 | Sig. Al. Eps.-*1305* |
| [5]Lucy, Frank Allen<br>A.B., Stanford, 1929, A.M., 1930 | Palo Alto | Chem. gr. | 460 Homer, P-p |
| Lucy, Richard Francis<br>A.B., Stanford, 1931 | Palo Alto | Ed.-G.A.5·175+101 | 460Homer,P-p |
| Ludwig, Milton | Auburn | LD 49+60 | 32 Encina-*1501* |
| Lui, Ralph Thomas<br>A.B., Stanford, 1931 | Napa | Pol.S. 5·181+151 | 1832 Cowper, P-p |
| [4]Lund, Hans Julian | Holtville | LD | 139 Toyon |
| [5]Lund, Oswe Trelfa | Evanston, Ill. | Geol.110·41+3 | 241Hwthrn,P-*1204* |
| [4]Lundy, Bessie Naomi<br>A.B., College of the Pacific, 1922 | San Jose | Educ. gr. | 1226 Yosemite, SJ-sj |
| Lundy, Virginia | Tulsa, Okla. | Soc.S.-Jn. 90·46+9 | 315 Roble-*1724* |
| [12]Lung, Chieng Fu<br>A.B., Stanford, 1931 | Canton, China | Econ.-Soc.90·90+54 | 245Ramona,P |
| [23]Lung, Paul Edward<br>B.S., College of Puget Sound, 1927 | Tacoma, Wash. | Chem. gr. | 841 Bryant, P-p |
| Lusignan, Frank W.<br>A.B., Stanford, 1928 | Stockton | Med. gr. | French Hospital, SF-sf |
| [5]Luther, Chester Francis<br>A.B., Stanford, 1928, A.M., 1929 | Auburn | Math. gr. | 6 Union-*2714* |
| Lyman, John Carnahan | Santa Monica | LD 44+68 | 310 Encina-*1922* |
| Lynch, Maria Celeste | San Francisco | LD 98+25 | 226 Roble-*1876* |
| Lynch, Richard Leslie | Amador City | Pre-Med.90·45+17 | 275Hmltn, P-p |
| Lynden, John Ross<br>A.B., Stanford, 1931 | Campbell | Econ. 90·90+16 | Sigma Nu-*1385* |
| Lyndon, Albert Ora<br>A.B., Stanford, 1931 | Waldport, Ore. | Econ. 89·91+35 | 55 Tait, LG-lg |
| Lyon, Carl Andrew<br>A.B., Stanford, 1931 | Palo Alto | Econ. 24·157+27 | 144 Emerson, P-p |
| Lyon, Ezra Clay | Santa Maria | LD 78·34–41 | Delta Chi-*1304* |
| Lyon, Harry Tom | Santa Maria | LD 112+25 | Pacific Grove-pg |
| Lyons, James Arthur, Jr.<br>A.B., Oregon, 1930 | Portland, Ore. | Engl. gr. | 536 Alvarado |
| Lyons, Mary Elizabeth | Portland, Ore. | LD 45+28 | 253 Roble-*1962* |
| Lyons, William<br>A.B., Stanford, 1931 | Los Angeles | Pol.S.111·69+28 | 202Portola,P-*685* |
| Lytle, Howard William | Stockton | S.Biol. 90·38–10 | 212 Sequoia-*817* |
| [4]McAfee, Robert William | El Paso, Texas | LD | 119 Toyon-*1172* |
| McAfee, William Arthur<br>A.B., Stanford, 1931 | Palo Alto | Pol.S. 180+79 | 155 Tasso, P-p |
| [12]McAllister, Lyle Boyd<br>A.B., Occidental, 1930 | Eagle Rock | Med. gr. | 1106 Ramona, P-p |
| [1]McAnaw, John Theodore<br>A.B., Stanford, 1931 | Cincinnati, O. | Pol.S. 98·93+42 | 209 Union-*2443* |
| [5]McArdle, Willis Kenneth | Pittsburgh, Pa. | Engl. 129·51+13 | 832 Kipling, P-p |
| McArthur, Arthur | Los Angeles | S.Engr.93·48+20 | 205Sequoia-*2219* |
| Macarthur, John D. | Breemount Trim,Ire. | LD 74+20 | 446 Encina-*2052* |
| [4]McArton, Peter Andrew<br>B.S., North Dakota Agricultural, 1927 | Johnstown,N.D. | Educ. gr. | 743 Homer, P-*634* |
| [5]Macbeth, Norman, Jr. | Los Angeles | Engl. 137+175 | Phi Kappa Psi |
| McBryde, Duncan | Redwood City | LD 44–3 | 315 Encina-*1403* |
| [12]McCaffery, Joseph J., Jr.<br>A.B., Stanford, 1930 | San Francisco | Law gr. | Military Way, P-*1363* |
| McCall, Desmond | Stockton | S.Engr. 100·37+6 | 524 Encina |

McCallum, Bruce Salinas S.Engr.48·93+22 302Sequoia-*1221*
[12]McCallum, William Jackson Salinas Chem. gr. 853 Channing, P-p
A.B., Stanford, 1930
McCardle, Jack B. Fresno S.Engr. 102·47–6 538 Encina-*2503*
[4]McCardle, May Rebecca Fresno Educ. gr. 147 Emerson, P-p
A.B., Fresno State College, 1925
[23]McCarthy, Andrew George San Mateo LD 14–7 455 Costa Rica, SM-sm
[23]McCarthy, James Howard Los Angeles LD 69–12 Phi Kappa Sigma
McCarty, Maclyn Kenosha, Wis. LD 93+124 Alpha Kap. Lam.-*1994*
[12]McCaughna, Frank A. Los Angeles Econ. 42·130–18 Kappa Sig.-*1326*
McCaughna, George Webster LosAngeles Econ. 87·105–23 723 S. Ynez-*1413*
[4]McCausland, Harriet Rosa-Lee Palo Alto Engl. gr. 1419 Byron, P-p
A.B., Stanford, 1917, A.M., 1927
McClatchie, Winifred Lovisa Palo Alto Chem. gr. 1119 Middlefield, P-p
A.B., Stanford, 1929, A.M., 1930, Ph.D., 1931
[1]McCleave, Mary Trowbridge Berkeley Psych. 182+96 Gam. Phi Beta-*1337*
A.B., Stanford, 1931
[12]McClintock, Robert Mills Altadena Hist. 196+347 575 Salvatierra-*1133*
A.B., Stanford, 1931
McCloskey, Thomas W., Jr. Terra Bella S.Engr.51·95+116 434Encina-*2002*
McClure, Robert William TwinFalls,Ida. LD 44–8 344 Encina-*2195*
McClure, William Henry Eureka S.Engr. 128+8 304 Sequoia-*613*
[4]McComb, Jesse Edward Phoenix, Ariz. Educ. gr. 2555 Waverley, P
A.B., Arizona, 1927, A.M., 1928
McComish, Jean San Jose LD 44+76 1023 Bird, SJ-sj
McComish, Paul Wickersham Colusa LD 43–21 244 Encina-*1486*
Maccono, Francis Joseph Mountain View E.E. gr. 869 Dana, MV-mv
A.B., Stanford, 1931
McCormick, Manson Fielding, Jr. Fresno Soc.S. 204+257 110 Toyon-*1468*
A.B., Stanford, 1931
McCormick, Sloan Peckham Fresno Soc.S. 30·153+42 305 Branner-*2365*
A.B., Stanford, 1931
McCormick, Willliam Holt Santa Clara LD 87+47 Sigma Al. Epsilon-*1305*
McCoy, Claudius Thomas TwinFalls,Ida. Phys. 140+136 Al. Kap. Lam.-*658*
[12]McCoy, Harry Stanbery Twin Falls, Ida. LD 25–22 315 Encina-*2153*
McCraney, Thomas Orlando Nevada City LD 78–17 Phi Kappa Psi
McCreadie, Janis San Francisco LD 94+176 Delta Delta Delta-*1325*
McCreery, Alice Tacoma, Wash. Hist. 34·186+60 Alpha Phi-*1387*
A.B., Stanford, 1931
McCreery, Helen Tacoma, Wash. LD 47·80+61 Alpha Phi-*1387*
McCulloch, Robert Paxton St. Louis, Mo. S.Engr. 105·56+28 564 Univ., P-p
McCullough, Elizabeth Irene Pasadena Hist. 88·71+83 Pi Beta Phi-*1918*
[12]McCully, Henry Howard Palo Alto Zoöl. 48·133+56 1035 Bryant, P-p
A.B., Stanford, 1931
[4]McCully, Katherine Margaret Palo Alto LD ‡ 1035 Bryant, P-p
[4]McCully, Leona Hadley Palo Alto Educ. gr. 1035 Bryant, P-p
A.B., Indiana, 1905; A.M., Stanford, 1928
McCurdy, Allan Hugh Eureka Hist. 90·90+152 315 Sequoia-2606
A.B., Stanford, 1931
McCurdy, Richard Clark Pasadena Min. gr. Beta Theta Pi-*1335*
A.B., Stanford, 1931
McDaniel, David Jamison San Francisco LD 93+76 140 Toyon-*1023*
McDermott, Allan L. Santa Ana S.Engr. 186+105 334 Encina
A.B., Stanford, 1931
MacDonald, Graeme K. San Francisco LD 75+26 Chi Psi-*1648*
[8]McDonald, Hovey Clyde San Jose Educ. gr. 121 S. 15th., SJ-sj
A.B., San Jose State Teachers College, 1928; A.M., Stanford, 1931

[12]McDonald, James A. Machias, Wash. Geol. 135·85+1 604 Gilman, P-p
A.B., Stanford, 1931
MacDonald, Russell Degen S. Pasadena S.Engr. 135+31 123 Toyon-*1912*
MacDonald, William J. Copper Cliff, Ont. LD 48+4 110 Encina-*1577*
[12]McDougall, John A. Portland, Ore. S.Engr. 95·112+26 218 Toyon-603
A.B., Stanford, 1931
[5]McDougall, Margaret E. Santa Barbara Econ. 6·114+31 103 Roble-*1435*
[124]McDowell, Carl Elliott Los Altos Pol.S.(Ind.StdyPln) L.Altos-*1151*
McDowell, Edgar Peirce Palo Alto LD 47+7 350 Addison, P-p
McDowell, John Ezra, Jr. Los Altos S.Bus. gr. Los Altos-Box 26, la
A.B., Stanford, 1930
McElney, James LeGay Burlingame LD 45+29 1416 Floribunda, B-b
[4]McElwain, Ferd William Lansford, N.D. Educ. gr. 641 Gilman, P-p
A.B., Minot State Teachers College, 1926
McElwain, Lester Stafford Burlingame Econ. 181+105 Phi Sig. Kap.-*538*
A.B., Stanford, 1931
[4]McElwain, Marion Ethel Burlingame LD ‡ 1537 Burlingame, B-b
[4]McEntire, Davis Preston, Idaho Fr. ‡ 303 Union
[1]McFadden, Loren E. Palo Alto Educ. gr. 847 Bryant, P-p
A.B., Colorado State Teachers College, 1918; A.M., Nevada, 1926
McFarland, Joseph H. Santa Barbara Econ. 90·90+60 Al. Sig. Phi-*1357*
A.B., Stanford, 1931
McFarland, Walter B. Las Vegas, N.M. S.Bus. gr. 209 Union-*2522*
A.B., Kansas, 1930
McGarr, Arthur F., Jr. Muskogee, Okla. S.Engr. 170+116 244 Toyon-*2702*
McGarry, John Louis Chicago, Ill. Pre-Med. 127+3 Sig. Al. Eps.-*1305*
[12]McGavern, Sanford Allen, Jr. Erie, Pa. LD 28+10 430 Forest, P-*516*
McGee, Charles Albert Ross Econ. 90·91+2 306 Sequoia-*2645*
A.B., Stanford, 1931
[4]McGee, Mildred M. Longview, Wash. Germ. gr. 500 Palo Alto, P-p
A.B., Oregon, 1931
McGeorge, Eugene William Sacramento Econ.90·44+4 Phi Sig. Kappa-*538*
[5]McGibbon, Edmund L. San Mateo Law gr. 335 El Portal, SM-sm
A.B., Dartmouth, 1929
[5]McGinnis, James Edward Santa Monica LD sp. 31+20 425 Encina
[3]McGowan, R. Emmet San Mateo S.Engr. 90·67+96 311 Union
MacGregor, William Weaver Oakland LD 90–2 141 Toyon-*1796*
[4]McGuinness, Helen R. Beverly Hills Educ. gr. 535 Salvatierra
A.B., California at Los Angeles, 1930
McHarry, Charles Parker Salinas LD 90+74 Kappa Sigma-*1326*
[4]McInerney, Leonora C. San Francisco Educ. gr. 371 15th Ave., SF-sf
A.B., San Francisco State Teachers College, 1925
[23]McInness, Chester M. Hollywood LD 123+83 326 Union-*734*
[4]McInnes, Ernest Flint, Mich. Engl.-P.Sp. gr. Los Gatos-lg
A.B., Southwestern, 1918
McInnis, John Wesley San Diego Econ. 90·43–11 Phi Delta Theta
McIntyre, Francis Edgar San Jose Econ. 90·92+139 211 Union-*1502*
A.B., Stanford, 1931
Mack, Duane Emory Minden, Nev. Law gr. 429 Forest, P-p
A.B., Nevada, 1930
Mack, H. Pitts Forest Hills, N.Y. Law gr. 222 Sequoia-*1556*
A.B., Stanford, 1928, LL.B., 1931
McKay, Hammel DeRoche Durham Engl.-P.Sp.25·155+75 Th.Chi-*1383*
A.B., Stanford, 1931
[4]MacKaye, David Loring San Jose Educ. gr. 314 Union
A.B., San Jose State Teachers College, 1930
McKean, Donald Chalmers Oakland LD 39+19 321 Encina-*623*

[1]McKee, George Washington Placerville Geol. 110+10 114 Encina-*1855*
[1]McKell, David McC. San Francisco Phyl. 137–8 260 Toyon-*706*
McKelvey, John F. Suffern, N.Y. Econ. 121+15 *223* Portola, P-p
McKenney, John Paul Oakland Med. gr. *2727* 55thAv.,Oakland-o
A.B., Stanford, 1929
Mackenzie, William George Palo Alto LD 49+58 364 Encina-*1495*
[5]McKeown, Robert B. Fort Collins, Colo. Psych. gr. 1420 Emerson, P-p
B.S., Colorado State Agricultural, 1917, M.S., 1926
[1]McKiernan, Charles Henry San Jose Educ. gr. 45 N. 8th, SJ-sj
A.B., Stanford, 1929, A.M., 1930
McKinnie, Murray Bernard Oakland LD 90·38–15 *32* Encina
[23]McKnight, Charles Galen Fresno Law gr. 230 Union-*1342*
A.B., Stanford, 1928, LL.B., 1931
[4]McLees, Bertram San Diego Law gr. 221 Toyon-*1056*
A.B., San Diego State Teachers College, 1931
[4]McLeish, Jessie Santa Clara Engl. gr. 1701 Liberty, SC-sc
A.B., College of the Pacific, 1924
McLellan, Edgar S., Jr. San Francisco LD 45+7 *227* Encina
[5]McLeod, Norman Agnew Los Angeles Econ. 148+84 333 Encina-*1335*
[4]McLin, Thomas Roland Sheridan, Wyo. LD 236 Toyon
[3]McMasters, John Herbert Taft Geol. gr. 429 Encina
A.B., Stanford, 1930
[1]McMillin, Harvey Clay Palo Alto Zoöl. gr. 1627 College, P-p
B.S., Washington, 1923; A.M., Stanford, 1926
McMurray, William Tracy San Francisco Econ. 90·92+88 307 Branner-970
A.B., Stanford, 1931
[1]McNamara,Austin Michael SanFrancisco LD 44+12 535 Salvatierra
[12]McNamara, Thad Maria Bakersfield S.Biol. 7·150–10 Del. Kappa Eps.
MacNaughton, Boyd Portland, Ore. S.Bus. gr. Portola-*1468*
A.B., Stanford, 1930
MacNaughton, Malcolm Portland, Ore. Econ. 88·95+14 Chi Psi-*1648*
A.B., Stanford, 1931
[4]McNeill, Thelma Mae Sunnyvale LD 498 Bryan, S-s
[1]McNemar, Quinn Keyser, W.Va. Psych. gr. 2030 Waverley, P-p
A.B., Juniata, 1925
McNiel, Walter Carson Santa Monica LD 59+14 *227* Encina-*1997*
Macomber, Hampton George Pasadena Pol.S.(Ind.St.Pln) S.A.Eps.-*1305*
Macomber, Thomas Wesson Burlingame LD 41+0 *228* Encina
[3]McPherson, John Clarke Portland, Ore. S.Engr. 127+19 Del. Kap. Eps
[23a]McQuilling, Donald William Pasadena Phys. 12·93+21 214 Oak, P-*931*
MacQuivey, Donald Ross Wendell, Ida. LD 48+3 126 Encina-*2502*
McRae, Kenneth Clarence Roseville Pol.S. gr. 311 Bizzell, P-p
A.B., Stanford, 1931
McRuer, Duncan Palo Alto Educ. gr. 610 Calif., P-(Sta.A)p
A.B., Park, 1912, A.M., 1915; A.M., Stanford, 1931
McSweeney, Ann Challen Los Angeles Econ. 170+73 Pi Beta Phi-*1918*
McWood,Gladys Elizabeth San Francisco LD 40+29 204 Roble-*807*
Macy, Robert Miller Adel, Iowa S.Bus. gr. 800 Cowper, P-p
A.B., Iowa, 1930
Maddaus, Oscar, Jr. Manhasset, N.Y. S.Bus. gr. 1506 College, P-*701*
A.B., Michigan, 1930
Madden, Mary Esther Pittsburgh, Pa. LD 46+41 *730* Bryant, P-p
Madden, Sidney Clarence San Francisco Med. gr. 2321 Sacramento, SF-sf
A.B., Stanford, 1930
Madden, Stanley Johnson Fresno S.Engr. 137+189 245 Toyon-*1001*
[12]Maddox, Ben, Jr. Los Angeles Econ. 19·166+85 Kingscote-*2511*
A.B., Stanford, 1931

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|---|---|---|---|
| Madison, Cedric Merit<br>A.B., Stanford, 1930 | Lodi | Law gr. | 347 Encina-*658* |
| [12]Madison, Ryland Randolph<br>A.B., Stanford, 1930, A.M., 1931 | San Mateo | Bact. gr. | 10 9th, SM-sm |
| Maentz, Robert Caldwell | Allegan, Mich | LD 39–13 | 446 Encina-*83* |
| Maer, Newton Kemp | Wichita Falls, Tex. | LD 45+43 | 352 Encina-*1753* |
| [5]Magee, Bissell Lewis | San Francisco | Pol.S. 103+35 | 206 Sequoia |
| [5]Magee, John Paul | Huntington Park | S.Engr. 153+24 | Theta Xi |
| Magee, Thomas Lea, II | San Gabriel | LD 78·73+23 | 219 Sequoia-*1289* |
| Magnus, Jean Eleanor | Los Angeles | Engl.(Ind.Stdy Pln) 364 | Roble-*2405* |
| Magnuson, Henry Walter<br>B.S., Oregon, 1930; A.M., Stanford, 1931 | Portland, Ore. | Educ. gr. | 711 Middlefield, P-p |
| Maguire, Fred Bell | Stanford Univ. | Pol.S. 136+132 | Phi Gamma Delta |
| [4]Maguire, Mary Carmel<br>A.B., Ursuline, 1928 | Santa Rosa | Engl. gr. | 98 Bosworth, SF-sf |
| [4]Mahu, William Goff | Coronado | LD ‡ | 557 Lasuen |
| [3]Mailer, James Clark | Santa Rosa | Econ.-Acct:75·55–8 | 22Branr-*1229* |
| [4]Main, Arthur Mahlon<br>A.B., College of the Pacific, 1922 | Hayward | Educ. gr. | 356 Kingsley, P-p |
| Main, Margaret Aileen<br>A.B., Stanford, 1931 | San Diego | Econ.46·137+139 | Al.OmicPi-*1367* |
| Maino, C. Runston | San Luis Obispo | LD 45+43 | 304 Encina-*1616* |
| Makle, Albert Leonard<br>A.B., Stanford, 1931 | Palo Alto | S.Engr. 23·169+97 | 558 Forest, P-p |
| [4]Mallet, Dorothy<br>A.B., Stanford, 1928 | Palo Alto | Ed.-G.A. gr. | 772 Palo Alto, P-p |
| Malloch, John Rolph | San Francisco | LD 19–18 | 208 Encina-*1701* |
| Malmquist, Gus Carl<br>A.B., Stanford, 1930 | Concord | S.Bus. gr. | Sigma Nu-*1385* |
| [4]Maloney, Tom Patrick<br>A.B., San Jose State Teachers College, 1930 | Santa Clara | Educ. gr. | 741 Franklin, SC-sc |
| [5]Malovos, Kenneth Richard<br>A.B., Stanford, 1930 | San Jose | Law gr. | 224 S. 11th, SJ-sj |
| Manger,Charles Christian | Honolulu,T.H. | LD 44+7 | 15 Encina-*716* |
| Manger, William Carlton | Honolulu,T.H. | LD 46+5 | 42 Encina-*522* |
| Manhire, Reu Elwood<br>A.B., Stanford, 1931 | Palo Alto | Econ. 181+91 | 120 Kingsley, P-p |
| [4]Mann, William | Coronado | Soc.S. ‡ | 557 Lasuen |
| Manning, Dorothy | Stanford Univ. | Chem. 130+201 | 649 Alvarado |
| Manning, Rhoda | Stanford Univ. | LD 83+141 | 649 Alvarado |
| [5]Mannino, Peter T. | Sacramento | Pol.S.90·75+13 | 535Salvatierra-*829* |
| Mannon, Fred Wells<br>A.B., Stanford, 1931 | Palo Alto | Pol.S. 180+55 | 627 Gilman, P-p |
| Mannon, Martha<br>A.B., Stanford, 1931 | Ukiah | Pre-Clin.6·183+315 | Del.Gam.-*1366* |
| Manor, Arnold | Oakland | Pre-Clin. 196+141 | 117 Toyon-*582* |
| Marble, Robert Emerson | S. Pasadena | LD 88+4 | Alpha Delta Phi-*J* |
| Marchant, William Harry | Vallejo | S.Engr. 133+19 | 114 Branner-*2757* |
| [4]Mardock, Edwin Scott | Hughson | Chem. ‡ | 305 Union-*1834* |
| [4]Mariani, Lois Victoria | San Francisco | LD ‡ | 324 Roble-*2134* |
| [12]Marks, Graham Wallace<br>A.B., Stanford, 1926, Engineer, 1927 | Los Angeles | Chem. gr. | 437 Encina |
| [4]Marks, Howard Keylor | Pasco, Wash. | LD | 137 Toyon-*1110* |
| Marks, Max<br>A.B., Stanford, 1931 | Pasco, Wash. | S.Engr. 5·184+61 | 214 Sequoia-*1110* |
| Marks, William Phillip | Burbank | Econ. 150+41 | Del. Kappa Epsilon |
| Markus, Anna | Santa Barbara | LD 27·48+72 | 257 Roble-*863* |

[5]Marple, Charles Dalliba — San Anselmo — Pre-Med.89+42 — Al.Kap.Lam.-*658*
[4]Marquardt, Julius Charles — Geneva, N.Y. — Chem. gr. — Kingscote
B.S., Wisconsin, 1917; M.S., Cornell, 1926
Marquis, Jean Lilian — Bellingham, Wash. — Psych. 54·133+246 — Kap. Al. Theta
A.B., Stanford, 1931
Marsh, Charles Judd — Menlo Heights — Psych. gr. — Menlo Heights-*133*
A.B., Antioch, 1929
Marshall, FrancisNathan — PaloAlto — Law gr. — 630 Gilman, P-*2711*
A.B., Stanford, 1928, LL.B., 1931
Marshall, Joseph Walden — Portland, Ore. — Chem. 142+85 — Phi Gamma Delta
Marshall, Mildred Josephine — Pasadena — Hist. 90·40+59 — 180 Roble
[2]Marshall, Violet Baker — Berkeley — Phyl. gr. — 534 Lasuen-*102*
A.B., California, 1923
Martin, Daniel Jerome — Washington, D.C. — Min. gr. — 962 Boyce, P-p
Graduate, U.S. Naval Academy, 1924; Engineer, Stanford, 1931
[4]Martin, Erwin Samuel, Jr. — Fresno — Educ. gr. — 411 Kipling, P-p
A.B., Fresno State College, 1924
Martin, Hall — Pasadena — LD 29+29 — 118 Encina-1138
[5]Martin,Howard Louis — Wichita Falls,Tex. — Soc.S. 90·63+26 — 747 Dolores
[4]Martin, Hugh B. — Santa Barbara — Law gr. — 11 Union
A.B., Stanford, 1922
Martin, Hugh Ralph — Riverside — Hist. 45·87–1 — Beta Theta Pi-*1335*
[5]Martin, Lois Ticknor — Stanford Univ. — S.Biol. gr. — 770 Santa Ynez
A.B., Stanford, 1930
Martin, Oliver Houston — Los Angeles — LD 43+24 — 250 Encina-*681*
[28]Marvin, W. Sherwood — Riverside — S.Engr. 50·96+2 — Theta Xi-*1184*
§[1]Marx, Robert Hugo — New York, N.Y. — LD — 124 Encina-*682*
Mason, Lawrence Oliver — Lindsay — Econ. 134+25 — 236 Toyon-*2757*
[5]Mason, William A. — Hollywood — M.E. gr. — 552 Alvarado-*1341*
A.B., Stanford, 1929
Massey, James — Samoa — LD 46+2 — 304 Encina-*802*
Matesky, Leo — Los Angeles — Engl.-P.Sp.90·90+7 — 422Encina-*987*
A.B., Stanford, 1931
Mathews, Benton D. — San Francisco — LD 92+104 — Theta Xi
Mathias, Louis John, Jr. — Toledo, Ohio — Educ. gr. — 564 University, P-p
B.C.E., Ohio State, 1920
Mathison, John Kenneth — San Mateo — S.Engr. 135·45–5 — 212 Toyon
[3]Matlock, Clifford Charles — Pasadena — Math. 53·73+103 — 164 Tasso, P-p
Matthew, Robert Alan — San Jose — Econ.90·44+36 — 720E.S.Frndo,SJ-sj
Matthews, George Roger — San Jose — Bact. gr. — 549 S. 10th, SJ-sj
A.B., Stanford, 1930
[5]Matveev, Illarion Gabriel — San Francisco — Econ.126·48+10 — 2340Sutter,SF-sf
[4]Matzinger, Philip — Salada Beach — Psych.102·59–11 — Al.Kap.Lam.-*658*
[4]Maughan, Reese P. — Logan, Utah — Educ. gr. — 855 Forest, P
B.S., Utah Agricultural, 1927
Maurer, Paul Bulger — Barstow — S.Engr. 180+52 — 238 Toyon-*2665*
A.B., Stanford, 1931
Maus, Katherine — Phoenix, Ariz. — Hist. 90·48+25 — 182 Roble-*854*
Mausser, Karl Henry — Burlingame — Econ. 90·90+8 — 146 Seale, P-p
A.B., Stanford, 1931
Maxwell, Helena — Santa Barbara — Engl. gr. — 641 Gilman, P-*2354*
A.B., Santa Barbara State Teachers College, 1930
[5]May, Angelo Mayer, Jr. — San Francisco — Phys.S.15·98+32 — 116Branner-*1743*
May, David, II — Beverly Hills — LD 53·19 — 407 Encina-*1937*
May, John Rickard — Berkeley — Pol.S. 181+109 — Phi Kappa Sigma
A.B., Stanford, 1931

§ Deceased, December 4, 1930

| | | | |
|---|---|---|---|
| Mayer, Evelyn K.<br>A.B., Stanford, 1929, M.B.A., 1931 | Rochester, N.Y. | S.Bus. gr. | 267 Roble-*1526* |
| [1]Mayer, Sandro B.<br>A.B., Stanford, 1930 | Hopewell Jct., N.Y. | Engl. gr. | 14 Perry, MP-*512* |
| [23]Mayfield, Wesley Waldo | Palo Alto | Soc.S.-Jn. 91·91–2 | 347 Alma, P-p |
| Mays, Alfred Stonesifer | Sausalito | S.Biol.90·74–18 | 729Wvrly,P-*1150* |
| Meacham, Courtney Fuller | Palo Alto | LD 48+*22* | 686 Columbia, P-p |
| Meade, Jack McBride<br>A.B., Stanford, 1931 | Seattle, Wash. | Pol.S. 135·45+10 | 680 Forest, P-p |
| Meade, Reginald Eson | Arcata | LD 76–6 | 134 Branner |
| [5]Meadowcroft, Allan James<br>A.B., Stanford, 1926 | StanfordUniv. | C.E. gr. | 308 Sequoia-*1134* |
| Meadowcroft, Niel F.<br>A.B., Stanford, 1930 | Stanford Univ. | C.E. gr. | 308 Sequoia-*1134* |
| [12]Meadows, Elmer Everett | Burlingame | Soc.S.-Jn.90·27+17 | 311Wvrly,P-p |
| Meadows, Roy Eduardo | Monterey | LD 89+45 | 112 Toyon-*1026* |
| Means, Charles David | Spokane, Wash. | LD 48+43 | 19 Encina |
| Mearns, William | Victoria, B.C. | S.Engr. 131+25 | 258 Toyon-*2665* |
| Mears, James Blythe<br>A.B., Stanford, 1931 | Los Angeles | Econ. 183+102 | Beta Theta Pi-1335 |
| Mechem, Onice Eugene<br>A.B., Stanford, 1930 | Stanford Univ. | Min. gr. | 409 Sequoia-*1911* |
| [12]Medau, John Edward<br>A.B., Stanford, 1931 | San Mateo | Econ. 180+104 | Phi Gamma Delta |
| [23]Meier, August William | Azusa | LD 30+29 | 448 Encina-*2552* |
| Meiggs, William Lawrence | Palo Alto | Ed.-G.A. 90·37–8 | 2195 Wvrly, P-p |
| [12]Melcon, Zenas Kurken<br>A.B., Stanford, 1917 | Kingsburg | Geol. gr. | 535 Byron, P-p |
| Melczer, Joe Treuhaft | Phoenix, Ariz. | LD 41+9 | 251 Encina-*1591* |
| Melgaard, Thomas Lee<br>A.B., Stanford, 1931 | Oakland | Econ. 185+30 | Phi Kappa Sigma |
| Mellinkoff, Abe Irving | Beverly Hills | Pol.S. 46·94+173 | 239 Toyon-*1944* |
| Melone, Woodward | Napa | LD 79+12 | Phi Gamma Delta |
| [4]Melville, Dorothy Lillian | San Francisco | Educ. ‡ 17+8 | 542 Church, MV-mv |
| [23]Mendel, Levitte | Palo Alto | Bact. 90·30+1 | 705 University, P-p |
| [23]Mendell, Wilbert Thornton | Oakland | LD 45+19 | 122 Encina |
| Mendelson, Joseph Bernard | San Francisco | LD 80+63 | 307 Sequoia |
| Mendenhall, Ernest Dunlap, Jr. | Piedmont | Econ. 143+63 | Beta Theta Pi-*1335* |
| [5]Meng, Tai Chuang<br>A.B., Stanford, 1931 | Hopei, China | Econ.-Soc. gr. | 534 Encina-*2556* |
| [12]Mercado, Louis R., Jr.<br>A.B., Stanford, 1929 | San Francisco | Law gr. | 514 Encina-*2277* |
| Meriam, Theodore<br>A.B., Stanford, 1931 | Chico | Econ. 90·93+44 | 402 Sequoia-*1250* |
| Mermod, Camille<br>A.B., Mills, 1922 | Winters | Med. gr. | 1538 Clay, SF-sf |
| Mermod, Leon E.<br>A.B., Stanford, 1928 | Winters | Med. gr. | 2321 Sacramento, SF-sf |
| [12]Merner, Ward Pfeiffer<br>A.B., Stanford, 1930 | Hillsborough | Cl.Lit. gr. | Hillsborough-*1333* |
| Merrill, Ambrose Pond, Jr. | Ogden, Utah | Pre-Clin.111·65–15 | 133Branr-*1163* |
| Mesenburg, John Lee<br>A.B., Stanford, 1931 | Palo Alto | S.Engr. 89·91+43 | 1036 High, P-p |
| [4]Messer, Nathaniel T., Jr. | San Francisco | LD | 224 Toyon |
| [23]Messimer, Prentice | New York, N.Y. | LD 15·29+16 | 200 Encina-*2039* |
| Messimer, William Gilbert | Palo Alto | S.Engr.48·74+52 | 200Kngly,P-*2039* |
| Metz, Doan Elvan<br>A.B., Stanford, 1931 | Monterey | S.Engr.5·183+179 | 115Branner-*852* |

| | | | |
|---|---|---|---|
| Metzger, Nonabel | Fresno | LD 9·45+41 | 152 Roble-*732* |
| Meyer, Hugo Bardill | Los Altos | Econ. 138+178 | Pine Lane, LA-la |
| Meyer, Robert Wiepking | Palo Alto | Chem. 142+225 | 121 Wvrly, P-p |
| Meyer, Ruth Robinson | Palo Alto | Anat. gr. | 121 Waverley, P-p |
| A.B., Stanford, 1930 | | | |
| Michelson, Carroll Edward | San Francisco | Pol.S. 90·96+10 | 320 Sequoia-*1025* |
| A.B., Stanford, 1931 | | | |
| Mickelson, Vernon Clifford | Sebastopol | Engl. 90·92+105 | 513 Encina-*2561* |
| A.B., Stanford, 1931 | | | |
| [23]Milburn, Ann Lowry | Hollywood | LD 45·30+25 | Roble-*1037* |
| Miles, Caretta Elizabeth | Stanford Univ. | LD 42·47+23 | 359 Roble-*1408* |
| Miles, Richard Billing | Los Angeles | LD 45+37 | 220 Encina-*1614* |
| [3]Millar, Henry Lloyd | Los Angeles | Min. gr. | Stanford Univ. |
| A.B., Stanford, 1925, Engineer, 1931 | | | |
| Millard, Gertrude Pope | San Jose | LD 44+21 | 354 Roble-*846* |
| Millard, Jeanne Dixon | Millbrae | LD 45+31 | 150 Roble |
| Miller, Albert George | San Francisco | Pre-Med. 160+65 | Pac. Grove-pg |
| [2]Miller, Arthur Carlton | Whittier | Law gr. | 1056 Webster, P-p |
| A.B., Stanford, 1927, LL.B., 1931 | | | |
| Miller, Arthur Leland | Half Moon Bay | Hist. 90·90+22 | 227 Sequoia-*1283* |
| A.B., Stanford, 1931 | | | |
| Miller, Dwight Oliver | Hollywood | Econ. 76·95+47 | 240 Toyon-*808* |
| A.B., Stanford, 1931 | | | |
| [4]Miller, Elbert D. | Marysville | Chem. ‡ | 318 Union-*621* |
| Miller, Frank Myron | Jamestown, Pa. | Educ. gr. | 426 Encina-*1177* |
| A.B., Pennsylvania State, 1927; A.M., Stanford, 1931 | | | |
| Miller, George Bernhard | Los Altos | Pre-Clin. 188+150 | 224 Union |
| A.B., Stanford, 1931 | | | |
| [4]Miller, Henry | Los Alamos | Educ. gr. | 236 Seale, P-p |
| A.B., Santa Barbara State Teachers College, 1929 | | | |
| Miller, Hugh Brazel | San Francisco | LD 74+19 | Phi Kappa Psi |
| Miller, Kathryn Huntington | Escalon | Math. 90·44+79 | 375 Roble |
| [4]Miller, Mabel Dorothy | Long Beach | Educ. gr. | 520 Cowper, P-p |
| B.S., Southern California, 1927 | | | |
| Miller, Mervin Thomas | San Francisco | Min. gr. | Phi Kappa Sigma |
| A.B., Stanford, 1930 | | | |
| [4]Miller, Martin S. | Olympia, Wash. | Educ. gr. | 1670 College, P-p |
| A.B., Southern California, 1920 | | | |
| Miller, Miriam | Porterville | Med. gr. | 365 Roble-*625* |
| A.B., Stanford, 1930 | | | |
| [4]Miller, Myra Elaine | Los Altos | LD ‡ | Los Altos-Box 225, la |
| Miller, Norman William | Menlo Park | LD 78–1 | Theta Delta Chi-*1828* |
| Miller, Ralph Blair | Pittsburgh, Pa. | M.E. gr. | 317 Sequoia |
| A.B., Stanford, 1926 | | | |
| Miller, Richard Crump | Los Angeles | LD 4·85+36 | 20 Branner-*2668* |
| [12]Miller, Sarah Kathryn | Los Angeles | Hist. 185+102 | Madroño-*1129* |
| A.B., Stanford, 1931 | | | |
| Miller, Willard Aldrich | Los Angeles | Econ. 5·128+21 | Theta Chi-*1383* |
| [12]Milligan, Kenneth M. | Long Beach | Econ. 180+51 | Kappa Sigma-*1326* |
| A.B., Stanford, 1931 | | | |
| Milligan, Robert Franklin | San Francisco | S.Engr. 137+17 | Phi Gam. Delta |
| Milliken, Donald Booth | Pasadena | S.Bus. gr. | 525 Lytton, P-p |
| B.S., California Institute of Technology, 1929; M.B.A., Stanford, 1931 | | | |
| [20]Mills, Gilbert Hartley | Hermosa Beach | Econ. 112·80+79 | 302 Union-*1299* |
| A.B., Stanford, 1931 | | | |
| Mills, Nelson Merrell | Detroit, Mich. | Pol.S. 180+114 | Zeta Psi-*B* |
| A.B., Stanford, 1931 | | | |
| Millsap, Francis Edmund | Woodland | Soc.S.90·39–18 | 427Embrcdro,P-p |

Milney, Stanley Arthur — Pasadena — Engl. gr. — 159 Emerson, P-*H*
A.B., Stanford, 1930

[34]Milthaler, Walter Charles — Palo Alto — Econ.-Acct.90·17+7 — 835Wbstr,P-p

Minckler, Jeff — Whitefish, Mont. — LD 43+3 — 41 Encina-*1482*

Miner, Ruth Lenore — Hollywood — Soc.S. 139+191 — 306 Roble-*675*

[4]Mino, Henry John — Berkeley — Econ. gr. — 245 Toyon
B.S., St. Mary's, 1931

Minor, James Hiram — San Mateo — LD 34+51 — 230 Encina

Minton, Owens — Mountain View — S.Engr. 104+53 — 613 Salvtirra-*2242*

Mires, Gene — San Francisco — LD 91+39 — 133 Toyon

[234]Mirón, José Mario — GuatemalaCity,Guat. — LD 27–11 — Encina-*1298*

Misumi, Ichiro — San Francisco — LD 83+83 — Japanese Club-*598*

Mitchell, Carroll — San Francisco — LD 38+4 — 323 Encina-*2152*

[124]Mitchell, Edmund G. — Cleveland, Ohio — Chem. gr. PA-R.F.D 1, Box 409, p
B.S., Illinois, 1930

[4]Mitchell, Ethel D. S. — Palo Alto — Soc.S.-Jn. gr. 1070 Forest Ct., P-p
B.S., Kansas State Agricultural, 1916

Mitchell, John Waldo — Palo Alto — S.Engr. 175+73 — Zeta Psi-*B*

[23]Mitchell, Pearl Beattie — Santa Monica — Engl. gr. — Menlo Oaks-Box 109, p
A.B., California at Los Angeles, 1930; A.M., Stanford, 1931

[23]Mitchell, Roy Frederick — Grass Valley — Educ. 181+48 — 536 Encina-*1784*
A.B., Stanford, 1931

Mitchell, Sidney Pearce — Palo Alto — LD 83+6 — Zeta Psi-*B*

[1]Mittauer, George T. — San Francisco — LD 68–32 — 205 Branner-*1544*

Moe, Chesney Rudolph — Chula Vista — Phys. gr. — 207 Union-*607*
A.B., Stanford, 1929

[5]Moffatt, Philip J. — Oklahoma City, Okla. — Econ. 165+20 — 215 Encina-*D.K.E.*

[12]Moffitt, Albert Rohloff — Palo Alto — S.Engr. 105·32–26 — 411 Coll., P-p

Moller, James William — San Rafael — Econ. 90·47+12 — Th. Del. Chi-*1828*

[34]Moment, Samuel — Oak Park, Ill. — Econ. 132·23+37 — 552 Alvarado

Moncrief, David Melville — Honolulu, T.H. — Econ. 137+55 — Phi Sig. Kappa-*538*

[12]Moneyhun, Frank Otis — Palo Alto — LD 38+31 — 1111 Greenwood, P-p

[1]Monk, John Clarkson — San Francisco — LD 55–14 — 430 Stanford, P-*1117*

[124]Monroe, Charles Mattison — Pasadena — Econ.90·93–2 — Casa Real Apts., P-p

Monsalve, Carlos Antonio — Los Angeles — LD 66+31 — Phi Kappa Psi

[234]Montana, Eduardo F. — Romblon, P.I. — Educ. gr. — 705 Cowper, P-p
B.S., Silliman Institute, 1924; A.M., Stanford, 1931

Monteagle, Fred James — Burlingame — Soc.S.-Jn.90·50+26 — 1225Bernal,B-b

Montgomery, Anne — Visalia — Engl. 90·49+33 — 182 Roble-*2044*

[4]Montgomery, Cora M. — Palo Alto — Educ. gr. — 556 Lytton, P-p
A.B., Stanford, 1928

Montgomery, Helen Black — Redding — Hist. 90·46+60 — 277 Roble-*2826*

Montgomery, James W. — Longmont, Colo. — Engl. 90·92+53 — 538 Encina-*2423*
A.B., Stanford, 1931

[5]Montgomery, John Warren — Palo Alto — Law gr. — 368 Lytton, P-p
A.B., Stanford, 1930

Montgomery, Robert B., Jr. — Lemoncove — LD 125·57+51 — 181 Lytton, P-p

[1]Mooney, Charles Neil — San Francisco — LD 28+8 — 106 Encina

Moore, Allan Arthur — San Anselmo — Econ. 90·93+2 — Phi Sig. Kappa-*538*

[4]Moore, Annie-Pauline — Hollywood — LD ‡ — 206 Roble-*1257*

[4]Moore, Claude Wilkins — San Mateo — Educ. gr. — 25 13th, SM-sm
A.B., Stanford, 1923

[4]Moore, Frank Ensor — Redlands — LD ‡ — 120 Toyon-*2262*

Moore, Fred Maurice — Provo, Utah — S.Bus. gr. — 250 Cowper, P-p
A.B., Brigham Young, 1931

Moore, George Eugene — Lodi — S.Bus. gr. — Alpha Delta Phi
A.B., Stanford, 1930

Moore, Howard Hoffman Honolulu, T.H. Econ.-Act.191+112 137Branr-*2375*
A.B., Stanford, 1931
[1]Moore, Howard Patrick Manila, P.I. Hist. 103–3 Kappa Sigma-*1326*
Moore, Jack Kuehn Los Angeles Med. gr. 2335 Washington, SF-sf
A.B., Stanford, 1928
Moore, James Webb Arroyo Grande Pre-Med.90·45+41 435Encina-*1079*
Moore, Joseph A., Jr. San Francisco S.Bus. gr. 213 Branner-*1099*
B.S., California, 1929; M.B.A., Stanford, 1931
Moore, Louis Charles Vacaville Pol.S. 137+139 Al. Sig. Phi-*1357*
[3]Moore, Luther Franklin, Jr. Stanford Univ. Pol.S. gr. 224 Sequoia-*526*
A.B., Stanford, 1929, A.M., 1931
Moore, Richard William Los Angeles Pre-Clin. 186+95 Delta Chi-*1304*
A.B., Stanford, 1931
Moore, Robert London Los Angeles LD 88+71 Delta Kappa Epsilon
[23]Moore, Sheila Tucson, Ariz. LD 29+42 266 Roble-*2653*
Moore, William Eldred Glendale S.Bus. gr. 441 Foothill-*1003*
A.B., Illinois Wesleyan, 1930
Moore, William Graff Redlands Econ. 93·88+69 327 Emrsn, P-*2129*
A.B., Stanford, 1931
[4]Moore, Yula Sanders San Jose Educ. gr. 511 S. 15th, SJ-sj
A.B., Occidental, 1923
[4]deMora, Trinidad M. Lawrence, Kans. Span. gr. 247 Roble
A.B., Madrid, 1919
[34]Morbeck, Dorothy Jane Kingston, Idaho Engl. 92+45 323 Roble
Morehouse, Merrill W. Hollywood Econ. 5·123+16 Del. Tau Del.-*1363*
Morello, Joseph John Saratoga M.E. gr. Saratoga-Box 48, s
A.B., Stanford, 1931
Moreton, Muriel Secor Santa Monica LD 48+72 345 Roble-*2126*
[1]Morgan, Arthur Henry Weiser, Idaho S.Bus. gr. 1532 California, P-p
B.S., Whitman, 1908
Morgan, Donald Paul Pomona LD 89+44 207 Sequoia-*1031*
Morgan, Isabel Merrick Pasadena Chem. 36·96+39 Alpha Phi-*1387*
[7]Morgan, James William Corning Law gr. 112 Cambridge, MP-mp
A.B., Stanford, 1931
[12]Morgan, John Talbert Birmingham, Ala. S.Engr. 135·56–35 Phi Kappa Sig.
[5]Morgan, Lucile F. Youngstown, Ohio Engl.-P.Sp. 135+36 A. O. Pi-*1367*
Morgan, Thomas Phillips S. Pasadena LD 41+19 210 Encina-*1517*
Morris, Bernard Burlingame Hist. gr. 502 Encina
A.B., Stanford, 1930
Morris, Brooks Theron Pasadena LD 49+68 309 Encina-*1632*
Morris, Charles S., Jr. Modesto Econ. 90·92+11 520 Encina-*951*
A.B., Stanford, 1931
Morris, David McKee, Jr. Pasadena LD 45·41–13 225 Encina-*891*
Morris, James R. A. Glendale Econ. 88·36–9 445 Hamilton, P-p
Morris, Lawrence Kendall Rohnerville Geol. 90·44–5 450 Encina
[1]Morris, Mark Munro Berkeley Bact. 105·13–25 408 Encina
Morris, Mary-Katherine Fallon, Nevada LD 85+67 Delta Gamma
Morris, Phillip Manwaring Havre, Mont. LD 46–13 238 Encina
[3]Morris, Virginia Bell Oakland Soc.S. 121·16+9 259 Roble
Morrison, Alan Fraser Palo Alto LD 55+9 249 Encina
[5]Morrison, Allan Ross Eureka Law gr. 323 Union-*1781*
A.B., Stanford, 1929
Morrison, Dale Angus Santa Clara S.Bus. gr. 214 Union
A.B., Stanford, 1930
Morrison, Harry Clifford Los Angeles Geol. 125+25 223 Union-*1441*
[4]Morrison, William Gentry Monterey Law gr. Centerville-Box 25, c
A.B., Stanford, 1929

[23]Morrow, Grant — San Francisco — LD 20–18 — 448 Encina
Morrow, John Christian — Los Angeles — Law gr. — Zeta Psi-*B*
A.B., California at Los Angeles, 1930
Morrow, Robert Ewing — Los Angeles — Econ. 180+9 — Theta Delta Chi-*2191*
A.B., Stanford, 1931
Morrow, Thomas H. T. — Tacoma, Wash. — Econ. 146+196 — *237* Branner-*1148*
Morrow, William Carr — Tacoma, Wash. — Econ. 131+53 — Theta Chi-*1148*
Morse, Anthony John — Menlo Park — LD 30–32 — Menlo Heights-*840*
Morse, Catherine E. — Bellingham, Wash. — Engl.88·73+21 — Gam.PhiBeta-*1337*
Morse, E. Constance — Menlo Park — Soc.S. 29·152+132 — Pi Beta Phi-*840*
A.B., Stanford, 1931
Morse, Stanley Wallace — Palo Alto — Chem. gr. — 215 Cowper, P-p
A.B., Hanover, 1920; A.M., Stanford, 1926
Morse, William Howard — Bellingham, Wn. — LD 41+62 — 307 Encina-*2662*
[5]Morse, William Russell — Palo Alto — Engl. gr. — 461 Homer, P-*1051*
A.B., Harvard, 1876, A.M., 1910, Ph.D., 1914
[5]Mortensen, Raymond Archie — Angwin — Chem. gr. — 313 Pettis, MV-mv
A.B., Pacific Union, 1919; M.S., Southern California, 1925
[1]Morthland, Andrew — Pasadena — LD ‡ 14–29 — Kingscote
[4]Morton, Frank Willard — San Francisco — Educ. gr. — Los Altos
A.B., Stanford, 1914
[12]Morton, Harry Sankey — Manila, P.I. — Econ. 161–12 — Kappa Sigma-*1326*
[4]Moseley, Glen Harrison — Mariposa — Educ. gr. — Kingscote
B.S., Nebraska, 1917
[6]Moseley, John Ohleyer — Norman, Okla. — Educ. gr. — 1375 College, P-*141*
A.B., Oxford, 1922, A.M., 1928
[5]Moser, Florence Elizabeth — Stanford Univ. — LD 38+4 — 243 Roble-*2633*
Moser, Henry — Stanford Univ. — Zoöl. 12·156+81 — 441 Foothill
[23]Mothershead, John Leland, Jr. — Pasadena — Phil. gr. — 558B Forest, P-p
A.B., Stanford, 1930
[4]Mott, George Fox, Jr. — Pacific Beach — Pol.S. gr. — Pacific Beach-pb
A.B., Stanford, 1929
Mott, Olive — Burlingame — Hist. 67·91+108 — 304 Roble-*704*
Motz, Leslie Leland — Bisbee, Ariz. — S.Engr.140+31 — 920Middlefield,P-p
[2]Moulton, Florence Ellen — San Francisco — Hist. gr. — 2040 Brdwy, SF-sf
A.B., College of Sacred Heart, 1922; A.M., Stanford, 1923
[23]Movitt, Eli Rodin — Los Angeles — Pre-Clin. 135·51+45 — 303 Union
A.B., Stanford, 1931
Movius, Arthur James — Billings, Mont. — LD 89+73 — Alpha Kap. Lambda-*658*
Moy, Stanley — Portland, Ore. — LD 50+63 — 338 Encina-*2102*
Mujica, Wilfred — Cuzco, Peru — S.Engr. 182+259 — 234 Union-*1297*
A.B., Stanford, 1931
[12]Mulford, Raymon Howard — Palo Alto — Econ. 5·175+200 — PA-Box 35, p
A.B., Stanford, 1931
[4]Mulholland, Charles M. — Palo Alto — Engl. gr. 1320 Byron, P-Box 271, p
B.S., Ohio State, 1925
[5]Muller, Adolph Martin — San Francisco — Econ. 28·98+13 — 214 Branner-*2004*
Muller, Otto Henry — Esslingen,Germany — LD 45·50+32 — 617 Crescent, SM-sm
[12]Mullin, Florence Marie — Honolulu, T.H. — LD 49·41+53 — 336 Roble-*1634*
[6]Mulvane, Raymond L. — San Bernardino — Econ. 12·147+47 — 217 Branner
[4]Munce, Tillie Carolyn — Fresno — Educ. gr. — Roble-*1139*
A.B., San Jose State Teachers College, 1927
Munger, Edward Entwistle — St. Louis, Mo. — LD 45+88 — 309 Encina-*1783*
Munson, Laura Austin — Sacramento — C.E. gr. — 565 Salvatierra
A.B., Stanford, 1923, Engineer, 1931
Munson, Merrill Crow — Modesto — Econ. 90·92+54 — 522 Encina-*1255*
A.B., Stanford, 1931

[4]Murdock, Glenn Evert — Redlands — Zoöl. gr. — Pacific Grove-pg
A.B., Redlands, 1928
[34]Murie, Clifford Arthur — San Jose — Educ. gr. — 1535 E. St. James, SJ-sj
A.B., San Jose State Teachers College, 1930
Murphy, Daniel Edward — Los Angeles — LD 46+18 — 424 Encina-*2115*
[34]Murphy, Margaret Mary — Denver, Colo. — Fr. 135·15+6 — 376 Roble-*1119*
Murray, Donald Angus — Suisun — E.E. gr. — 107 Sequoia-*2485*
A.B., Stanford, 1928
Murray, Howard Andrew — Butte, Mont. — LD 76–10 — 1321 Waverley, P-p
[1]Murray, Margaret E. — Santa Monica — Psych. gr. — 565 Salvatierra-*2804*
A.B., Mt. Holyoke, 1929
[5]Murray, Paul Wendell — Santa Cruz — Econ. 90·93–3 — 205 Emerson, P-p
Murray, Phillips Logan — Los Angeles — LD 88+37 — Phi Delta Theta
Murrieta, Alfred John, Jr. — Los Angeles — LD 45–1 — 326 Encina-*2116*
[5]Musante, Catherine A. — San Francisco — Fr. gr. — 265 Roble-*2283*
A.B., Stanford, 1931
Musgrove, Jacob DeKalb, Jr. — Woodland — Pol.S. 132+26 — Sigma Chi
[5]Myers, George Sprague — Palo Alto — Zoöl. gr. — 733 Homer, P-p
A.B., Stanford, 1930, A.M., 1931
Myers, John Wescott — Los Angeles — LD 72+39 — Chi Psi-*1648*
[4]Myers, Lee Andrew — Oakland — LD — 135 Toyon
[12]Myers, Robert Leland — Portland, Oregon — LD 98+48 — 132 Branner
Myers, Vera LaMellie — Brush, Colo. — LD 41+16 — 237 Roble-*1722*
[12]Myers, William A. — Lapeer, Mich. — LD 48·32+25 — 112 Encina-*534*
[12]Mynard, Robert Henry — Oakland — LD 90+100 — 204 Toyon-*2757*
Nakamura, Hiomi — La Jolla — LD 46–6 — 337 Encina
Nakayama, Masura — Tokyo, Japan — LD 97+28 — 112 Branner-*2754*
Narbutovskih, Paul M. — San Francisco — E.E. gr. — 201 Union
A.B., Stanford, 1929
[1]Nash, Hammond Goodrich — Altadena — Econ. 74–5 — Kappa Sigma-*1326*
Nash, Paul Dudley — Palo Alto — Pol.S.139+108 — 352Middlefield, P-p
[5]Naylon,GeorgeE., Jr. — BrentwoodHeights — S.Engr. 91+50 — Alpha Del. Phi-*J*
Neale, Roderick Malcolm — San Mateo — Zoöl. 149+176 — 247 Toyon
Nealley, W. Grafton — South Berwick, Me. — Pol.S. gr. — 507 Encina-*50*
A.B., Maine, 1929; A.M., Stanford, 1930
[12]Neel, Henry Howard — Ventura — LD 31–20 — 355 Encina-*2207*
Neff, Edith Laura — Palo Alto — LD 91+13 — 1151 Middlefield, P-p
Neighbors, Clarence Beatty — Anaheim — S.Bus. gr. — Sig.Alpha Epsilon-*1305*
A.B., Stanford, 1929
Neikirk, W. Thom — Palo Alto — S.Engr. 182+112 — Sigma Chi
A.B., Stanford, 1931
[13]Neill, Phillip Sinclair — Santa Monica — Econ. 42·122+52 — Delta Kappa Eps.
[34]Neilson,CarolineMcDougal — SnFrancisco — Fr. 54·112+57 — Kappa Alpha Theta
[4]Nelson, Albert G. — Hopland — Educ. gr. — 584 Lasuen-*2792*
A.B., California, 1928
[13]Nelson, Arnold Harvey — Burlingame — Law gr. — 1414 Paloma, B-b
A.B., Stanford, 1925, LL.B., 1931
[4]Nelson, Clarence William — Berkeley — Phys. gr. — 633 Lytton, P-p
B.S., California, 1924
[4]Nelson, E. Theresia — Crockett — Hist. gr. — 535 Salvatierra
B.S., Minnesota, 1923; A.M., Stanford, 1929
Nelson, Louise Harrison — Kansas City, Mo. — LD 45·44+1 — 110 Roble-*2032*
[1]Nelson, Ruth — Kansas City, Mo. — LD 89–4 — Kappa Alpha Theta
Nelson, Scott Giles — Preston, Idaho — Engl. gr. — 420 Florence, P-p
B.S., Utah Agricultural, 1928
Nelson, Walter Andrew — Long Beach — S.Bus. gr. — 226 Union
A.B., Stanford, 1929, M.B.A., 1931

Neuman, James Vincent, Jr. Woodside LD 44–4 Woodside,RC-BoxBB,rc
[4]Newby, William W. Salt Lake City, U. Zoöl. gr. Pacific Grove-pg
A.B., Kansas, 1926; M.S., Iowa State, 1927
Newcomb, Walter Martin Palo Alto Educ. 130+50 2027 Emerson, P-p
Newcomer, Margaret H. Los Angeles Econ. 135+155 KappaAlphaTheta
Newell, Joseph Carroll Palo Alto Econ. 22·158+10 1143Bynt,P-*1335*
A.B., Stanford, 1931
Newlin, Joseph Elwood Fresno Hist. 103·28–28 Phi Delta Theta
Newman, Robert Wilson Ogden, Utah Med. gr. 2275 Jackson, SF-sf
A.B., Stanford, 1928
Newman, William Jesse San Francisco LD 92+126 216 Sequoia-*586*
[4]Nichols, Ambrose Reuben San Jose Educ. gr. 402 S. 14th, SJ-sj
B.S., Upper Iowa, 1902
Nichols,Clare Woodward Shanghai,China LD 90+90 Delta Gamma-*1366*
[3]Nichols, Eleanor Mary Pasadena Zoöl. gr. Roble
A.B., Stanford, 1929
Nichols, Harry A., Jr. San Francisco S.Engr. 195+180 Theta Xi
A.B., Stanford, 1931
[1]Nichols, Harry Evans, Jr. Chico S.Engr.‡14–5 251 Hawthorne, P-p
[12]Nichols, James Ross Taft Geol. 184–16 Delta Tau Delta
[4]Nichols, Madaline Wallis San Rafael Span. gr. 565 Salvatierra-*929*
A.B., Mt. Holyoke, 1918; A.M., Cornell, 1922
Nichols, Robert McC., Jr. San Francisco S.Engr. 5·145+62 251 Toyon-*1286*
Nichols, William Ford Shanghai, China Hist. 180+152 Delta Chi-*1304*
A.B., Stanford, 1931
[4]Nicholson, Helen Schenck Tucson, Ariz. Span. gr. 579 Alvarado
A.B., Vassar, 1907; A.M., Arizona, 1918
Nickerson, Vesta Katharine Redlands LD 48+76 346 Roble-*2023*
Nicoll, Melvin Adam, Jr. Honolulu, T.H. LD 43–16 247 Encina-*1684*
Niederauer, Philip Allen San Jose Econ. 90·91+10 209 Branner
[234]Niederhauser, Charles Howard Oakland Educ. gr. 1010 Bryant, P-p
A.B., Oberlin, 1911
[2]Nielsen, Elmer Greenville, Mich. Econ. 112·74+11 Univ. Hotel, P-p
A.B., Stanford, 1931
Nielsen, Russell Anton Portland, Ore. LD 96+124 18 Branner-*2632*
[12]Niendorff, Arthur Starr Dallas, Tex. Phil. 111·69+22 1130 Univ., P-p
Nikirk, Jane San Francisco Econ. 137+183 Al.OmicronPi-*1367*
[4]Nilsen, Rose Claire San Francisco Educ. gr. 256 Roble
A.B., San Francisco State Teachers College, 1928
[12]Nimmo, Francis Vere Pasadena Pol.S. gr. 332 Forest, P-p
A.B., Southern California, 1930; A.M., Stanford, 1931
Nisbet, Alfred Waters Los Angeles Psych.184+58 DeltaTauDelta-*1363*
A.B., Stanford, 1931
Nissen, Clarence Reuben Esparto Econ. 90·45+32 106 Sequoia-*2175*
Nitchy, Fred A., Jr. Portland, Ore. S.Engr. 143+10 Theta Chi-*1383*
[1]Nixon, Ellis Wylie Red Bluff Med. gr. 328 Union-*123*
A.B., California, 1929
Noack, Leland Alfred Oakland Econ. 108·64–1 115 Toyon-*618*
Noble, Susan San Francisco LD 19·70+30 Kappa Alpha Theta
Nobs, Benita Edith Grass Valley Ed.-G.A. 181+125 301 Roble-*2345*
A.B., Stanford, 1931
Nollen, Emeline Bartlett Grinnell, Iowa Phil. 91·91+151 Alpha Phi-*2236*
A.B., Stanford, 1931
[2]Norberg, N. Gunnar Little Falls, Minn. Econ. 152–41 240 Emb., P-*1851*
Norberg, Ray William Beverly Hills Med. gr. St. Francis Hosp., SF-sf
A.B., Stanford, 1925, A.M., 1927
[34]Nordgren, Lilly Magnhild Corvallis, Ore. Educ. gr. Sigma Kappa-*1327*
B.S., Oregon State Agricultural, 1924

Norman, Lewis Arthur, Jr. Santa Ana Geol. 128+98 231 Branner-*2019*
[5]Norris, Frank Palo Alto Pre-Med. 117+15 Chi Psi-*1648*
Norris, Nilan Elmer Palo Alto Econ. gr. 515 Cornell, P-(Sta.A)p
A.B., Stanford, 1930
[12]Norris, Ruby Turner Palo Alto Econ. gr. 515 Cornell, P-(Sta.A)p
A.B., Vassar, 1929; A.M., Stanford, 1930
Norris, Wilbur James Palo Alto Econ. 102·78+4 117 Tennyson, P-p
A.B., Stanford, 1931
[5]Northcote, Oliver Stafford Los Angeles Law gr. 216 Encina-*1203*
A.B., Stanford, 1929
Northrop, Burr Delevan Napa LD 114–19 Sig. Alpha Eps.-*1305*
[5]Northway, Frederick James Hughson Pre-Med. gr. 509 Encina-*2665*
A.B., Stanford, 1930
[4]Norton, Sanford H. Los Angeles Pol.S. ‡ 131 Toyon
[5]Norvell, Oliver W. Stanford Univ. S.Biol. gr. 499A Governor's
A.B., Stanford, 1930
Notter, Harley Arthur Palo Alto Hist. gr. 257 Hawthorne, P-p
A.B., College of Puget Sound, 1925; A.M., Stanford, 1927
Nourse, Elizabeth Palo Alto Soc.S. 139+84 Gam. Phi Beta-*1337*
Nourse, Joan San Francisco Engl. 180+94 KappaKappaGamma
A.B., Stanford, 1931
[5]Nourse, John Lincoln Palo Alto Law gr. Sigma Chi
A.B., Stanford, 1931
Novacovich, George Gregory Watsonville Pre-Med. 98·47+23 333 Wvrly,P-p
[4]Noyes, E. Louise Santa Barbara Engl. gr. 535 Salvatierra-*2766*
A.B., Northwestern, 1911
[4]Noyes, Norman Earl Los Angeles LD ‡ Toyon
[12]Nugent, Donald Ross Palo Alto Educ. gr. 645 Gilman, P-p
A.B., Stanford, 1930, A.M., 1931
[12]Nunan, Kneeland S. Pasadena S.Engr. 43·72+5 804 Bryant, P-p
[234]Nute, James Cudner Palo Alto Soc.S. 43·106+75 771Hamilton,P-p
Nute, William Thomas Palo Alto Pol.S. 90·46+11 415 Lytton, P-p
Nutt, Joseph Randolph,Jr. Cleveland,Ohio Pol.S. 52·92+78 132 Lincoln, P-p
[12]Nutt, Sarah East Cleveland, Ohio Engl. 96·68+104 132 Lincoln, P-p
Nuttall, Alexander K. Middlesex,England E.E. gr. 332 Union-*2755*
A.B., Trinity, 1928
Nyeland, Aksel San Mateo LD 53+3 Delta Upsilon
Oatman, Jack Lawrence San Diego Pol.S. 41·91+15 Zeta Psi-*B*
Oberg, Carey Hiram Riverside S.Engr. 90·47+30 Theta Xi
[4]Oberson, Louis Edward Mabton, Wash. Educ. gr. 301 Union-*1062*
A.B., Willamette, 1928; A.M., Stanford, 1930
O'Brien, Charles Thomas Sacramento Law gr. 436 Waverley, P-p
A.B., Stanford, 1930
O'Brien, Francis Joseph Stockton LD 51·61–6 Kappa Alpha
O'Brien, George Francis Sacramento Med. gr. 436 Waverley, P-p
A.B., Stanford, 1929
O'Connell, Thomas Francis San Diego Med. gr. 2180 Washington, SF-sf
A.B., Stanford, 1930
O'Connor, Aileen Margaret SanFrancisco LD 91+100 Kappa Kappa Gamma
O'Connor, Margaret E. Long Beach Pol.S. 90·91+86 249 Roble-*2673*
A.B., Stanford, 1931
Odale, Oscar Lehman Lemoore S.Engr. 91·89+5 311 Mdlfld., P-p
[5]Oddie, Richard Meigs San Francisco Pol.S. 22·123–5 Chi Psi-*1648*
[5]Odell, Cary Elliott Beverly Hills Ed.-G.A. 110+47 PhiSig.Kap.-*538*
[4]Odgers, George Allen Honolulu, T.H. Educ. gr. 319 Union
A.B., Nebraska, 1916; A.M., Washington, 1923
[9]O'Donnell, E. Sheridan HuntingtonPark S.Engr. 169+11 680 Forest, P-p

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|---|---|---|---|
| [4]Oeschger, Joseph Carl | Palo Alto | Educ. 116·69+6 | 724 Bryant, P-p |
| [2]Off, Charles Frederick | Hollywood | Econ. 131+14 | Theta Xi |
| O'Flyng, Richard Max | Fullerton | Chem. 93·45–2 | 333 Waverley, P-p |
| Ogg, Richard Andrew, Jr. | Palo Alto | Chem. gr. | 369 Forest, P-p |
| A.B., Stanford, 1929, A.M., 1930 | | | |
| Ogilvie, Harry Norman | Lindsay | LD 38–16 | 203 Encina-*1466* |
| Oglesby, Clarkson Hill | Phoenix, Arizona | S.Engr. 90·49+82 | 205Sequoia-*1154* |
| [4]Ogren, Carl Malkus | Dillon, Mont. | Educ. gr. | 743 Homer, P-p |
| B.S., North Dakota Agricultural, 1927 | | | |
| [5]Ohnhaus, Anne | Cheyenne, Wyo. | Econ. gr. | Pi Beta Phi-*1918* |
| A.B., Stanford, 1931 | | | |
| Oishi, Ta | Oakland | M.E. gr. | 827 Ramona, P-p |
| B.S., California, 1929; Engineer, Stanford, 1931 | | | |
| [4]O'Keefe, M. Ethel | Menlo Park | Span. gr. | Menlo Pk.-Box 516, mp |
| A.B., Stanford, 1921 | | | |
| [12]Okker, William | Burlingame | Pre-Clin. 153+73 | 201 Union-*1761* |
| Oliver, Alden Edward | Mount Eden | Econ. 182+106 | 13 Toyon-*2491* |
| A.B., Stanford, 1931 | | | |
| Olmsted, Ardiane | Pasadena | Soc.S. 107+62 | Alpha Phi-*1387* |
| [3]Olmsted, Frederick | Stanford Univ. | Engl. 115+63 | 773 Dolores |
| Olsen, William Isak | San Mateo | Hist. gr. | 114 Warren, SM-sm |
| A.B., Stanford, 1928, A.M., 1931 | | | |
| [4]Olson, Oscar Henry | Burlingame | Educ. gr. | 1452 Vancouver, B-b |
| B.S., California, 1924 | | | |
| [5]Olson, Vivian Kathryn | Santa Rosa | Soc.S. 111·49+32 | 377 Roble-*2127* |
| [4]O'Neil, Maud Elivyn | Mt. View | Engl. gr. | 350 Palo Alto, MV-mv |
| A.B., Stanford, 1924 | | | |
| [5]Onishi, Masao | Japan | Econ. 18·93+48 | Japanese Club-*959* |
| [4]Onthank, Karl William | Eugene, Ore. | Educ. gr. | 541 Salvatierra |
| A.B., Oregon, 1913, A.M., 1915 | | | |
| [4]Ophüls, Elinor Helen | San Francisco | Econ. 95+63 | 228 Roble-*2553* |
| Oppenheim, Morris, Jr. | San Francisco | LD 90+60 | 133 Toyon |
| Oppenheim, Ramsey, Jr. | San Francisco | LD 46+31 | 21 Encina-*2009* |
| [4]Osborn, Clarence Gladden | Palo Alto | Hist. gr. | 981 College, P-(Sta.A) p |
| A.B., Stanford, 1926, A.M., 1927 | | | |
| Osborn, Earl Forrest | Sebastopol | Hist. 90·91+43 | 540 Encina-*16* |
| A.B., Stanford, 1931 | | | |
| Osborn, Helen Dunstan | Fresno | Soc.S. 137+160 | Pi Beta Phi-*1918* |
| [4]Osborn, Marion B. | Bakersfield | Ed.-G.A.‡15+10 | Roble |
| Osborne, Robert Chess, Jr. | Mill Valley | LD 92+22 | 318 Lincoln, P |
| [5]Osborne, Selden Leroy | Mill Valley | Pol.S.22·148+127 | 1325WlsnWay,P |
| Oshier, Edwin Harlow | Boston, Mass. | S.Engr. 117+4 | 323 Sequoia-*2412* |
| Osmonson, Willis Enos | Palo Alto | Econ. 181+50 | 576 Everett, P-p |
| A.B., Stanford, 1931 | | | |
| [5]Oswill, Donald Charles | Richmond | Econ.-Acct. 149+24 | 240Brnr.-*2668* |
| Otis, Charles Kellogg | Pasadena | LD 45+17 | 309 Encina |
| Ottenheimer, Louis Carl | SaltLakeCity,U. | LD 47+28 | 336 Encina-*1921* |
| [5]Overacker, Horace Emerson | St. Helena | E.E. gr. | 344 Tennyson, P-p |
| A.B., Stanford, 1922, Engineer, 1923 | | | |
| [4]Overton, Clin Dow | Burlingame | Hist. gr. | Los Altos-la |
| A.B., Walla Walla, 1921 | | | |
| Overton, Constance Elizabeth | Piedmont | LD 41+39 | 356 Roble-*1844* |
| [23]Overton, Nancy Elton | Piedmont | LD 61–11 | Gamma Phi Beta |
| Owen, Louis Jackson | Stanford Univ. | Soc.S. 138+61 | Al.TauOmega-*1384* |
| [5]Owen, Zona Celestene | Caspar | Engl.-P.Sp. gr. | 316 Roble |
| A.B., Stanford, 1931 | | | |
| Owens, Elliott Russell | Santa Cruz | LD 46–11 | 234 Encina-*1721* |

[4]Owings, Morgen Edwards Salem, Ore. Educ. gr. 616 Forest, P-p
B.S., Oregon Agricultural, 1929
Ownby, James, Jr. Gridley Med. gr. 2321 Sacramento, SF-sf
A.B., Stanford, 1928
Packard, David Pueblo, Colorado LD 49+66 236 Encina-*1231*
[5]Packard, Walter H., Jr. Corcoran Psych. 171+82 202Brnr-Box816,p
[23]Paddleford, George Stetson Hollywood Econ. 125+13 308 Union-*2488*
Paddleford, Hugh Taggart Lodi Econ. 148–8 Phi Gamma Delta
Padgett, Vernon W. Texarkana, Ark. Med. gr. 2180 Washington, SF-sf
A.B., Stanford, 1929
Page, Ben Markham Pasadena LD 106+109 Alpha Delta Phi-*J*
Page, Eleanor Los Angeles LD 97+35 Chi Omega
Page, Ernest Winslow Berkeley Med. gr. 2180 Washington, SF-sf
A.B., Stanford, 1930
Page, Griffith Davidson Los Angeles LD 82–2 Sigma Nu-*1385*
[1]Page, Lewis Morton Kansas City, Mo. Econ. 107–6 231 Branner-*1167*
[23]Pahl, John George Berkeley LD 84+6 Theta Chi-*1383*
[13]Paine, Elizabeth Trueblood Berkeley LD 21-76+28 340 Roble-*1923*
[1]Paine, Robert Treat Redlands Cl.Lit. 52-138+5 707 Slvtra.-*1384*
A.B., Stanford, 1931
[1]Painter, Edwin Merle Bakersfield M.E .gr. 326 Union-*2305*
A.B., Stanford, 1929
Palamountain, Bennett Howard Oakland LD 43+7 316 Encina
[1]Pallette, Drew Brown Los Angeles LD 70+12 Kingscote-*626*
Palmateer, Ethel May Palo Alto Eng.-P.Sp.181+104 1028Cwpr,P-p
A.B., Stanford, 1931
[12]Palmberg, Herbert George Astoria, Ore. S.Engr. 180+178 319 Sequoia-*1136*
A.B., Stanford, 1931
Palmer, Dwight Livingstone Saratoga Econ. gr. 440 Melville, P-p
A.B., Pomona, 1925; A.M., Chicago, 1926
[5]Palmer, Errol Payne Phoenix, Ariz. LD 74+30 Sigma Chi
Palmer, Morris Hill Ashland, Ohio LD 45+19 246 Encina-*2151*
[4]Palmer, Paul Vincent Phoenix, Ariz. S.Biol. 87 Sigma Chi
Palmer, William Albee Palo Alto S.Engr.90-43–16 369Churchill,P-p
[12]Pamphilon, George Maxwell Burlingame S.Engr. 181+123 2015Bdwy,B-*907*
A.B., Stanford, 1931
Panero, Pete Ernest Delano LD 33–20 233 Encina-*2668*
[13]Park, Royal Wheeler Menlo Park Educ. gr. Ravenswood, MP-mp
Graduate, U.S. Military Academy, 1918; A.M., Stanford, 1931
Parker, Charles Wilson Hilo, T.H. LD 48+21 402 Encina-*2398*
Parker, Donald DeWitt Pasadena LD 94+173 611 Waverley, P-*615*
Parker, Frances Marion Pasadena LD 48+73 148 Roble-*615*
Parker, John Stone Rockford, Ill. Econ. 180+7 Phi Delta Theta
A.B., Stanford, 1931
Parkin, Harry Dravo, Jr. Los Angeles Econ. 96+2 Sigma Nu-*1385*
Parkin, John Buckworth Seattle, Wash. LD 96+29 247 Branner-*1914*
[4]Parks, Grace Amelia Palo Alto Engl. gr. 2015 Emerson, P-p
A.B., Washington, 1917
Parma, Lawrence Mellen Santa Barbara Soc.S. 90-46+20 Kappa Alpha
Parramore, Norwood D. Abilene, Texas LD 90-63+36 1001 Cowper, P-p
[1]Parrish, Ruth H. Gt. Barrington, Mass. Educ. gr. 431 Channing, P-*2546*
B.S., Massachusetts Agricultural, 1929; A.M., Stanford, 1930
Parsons, Florence Louisa Pacific Grove LD 46+46 460 Oberlin, P-*1594*
[1]Parsons, Jack James Menlo Park Educ.111–32 Roble,MP-Bx543,mp
Parsons, Mary Elizabeth Pacific Grove LD 46–7 460 Oberlin, P-*1594*
Pascoe, John R. Godthaab, Greenland S.Engr. 146+127 203 Toyon-*1468*

[12]Patacsil, Eufrosino Garcia — Munoz, P.I. — Econ. 135·32–18 — 570 Alvarado
[3]Patacsil, Paterno Caccam — Bauang, P.I. — Educ. 90·91–10 — 570 Alvarado
Patch, Clifford Austin — Los Angeles — S.Engr. 112·48+12 — 845 Wvrly, P-p
[23]Pate, Waldo Hays — San Francisco — Med. gr. — 700 Shotwell, SF-sf
A.B., California, 1923, A.M., 1928
Patek, Richard Joseph — Hollywood — Pre-Med.96·25–11 — 305Lytton,P-p
Paterson, James Kent — Detroit, Mich — Econ. 90·91+38 — The.DeltaChi-*1828*
A.B., Stanford, 1931
[4]Pattee, Howard Hunt — Pasadena — Educ. gr. — 665 Alvarado
A.B., Pomona, 1922; A.M., Stanford, 1926
[1]Patten, Frank B., Jr. — Pasadena — Pol.S. gr. — 335 Lytton, P-*1305*
A.B., Stanford, 1929
[4]Patterson, Ellis Elwood — King City — Law gr. — 313 Toyon
A.B., California, 1921
Patterson, James Warren — Piedmont — Sc.S.-J.102·79+25 — Mls.Hp.,SM-sm
A.B., Stanford, 1931
[4]Patterson, Loice Bridges — San Jose — LD ‡ — 444 S. 15th, SJ-sj
Patterson, Ruth Anita — Fresno — Educ. gr. — Alpha Omicron Pi-*1367*
A.B., Stanford, 1930, A.M., 1931
[12]Patterson, Victor H. — Wytheville, Va. — S.Engr. 101–15 — 537 Encina-*913*
[5]Patterson, William Donald, Jr. — Newark — Econ. gr. — 443 Kipling, P-p
B.S., Harvard, 1927
Patton, Henry Stannage — Berkeley — Pre-Med. 90·45+15 — 247 Brnr.-*2367*
Pauly, Frederick Nye — Los Angeles — Econ. 9·182+22 — Phi Gamma Delta
A.B., Stanford, 1931
[4]Payne, Alan E. — Humboldt, Ariz. — Educ. gr. — 835 Lytton, P-p
A.B., Stanford, 1919
[4]Payne, Lois Estelle — Kelso, Wash. — Educ. gr. — 620 Homer, P-p
A.B., Pacific University, 1922
Peache, Alphonso Moneton — San Francisco — LD 38+5 — 218 Encina
Pearman, Fred Wolcott — Los Angeles — Span. 117+37 — 28 Branner-*876*
Pearson, Bruce Reed — Turlock — Med. gr. — 2430 Fillmore, SF-sf
A.B., Utah, 1924
[4]Pearson, Celia Hull — Kearney, Neb. — Educ. gr. — 512 Lytton, P-p
A.B., Nebraska State Teachers College, 1927
Pearson, Harvey Jones — Beverly Hills — Econ. 180+30 — Delta Chi-*1304*
A.B., Stanford, 1931
Pease, Bradford N. — Portland, Oregon — LD 94+86 — Zeta Psi-*B*
[4]Pease, Howard — Los Altos — Educ. gr. — Los Altos-Box 276, la
A.B., Stanford, 1924
[13]Pease, Richard Arthur — Hollywood — Econ. 181+78 — Kappa Alpha
A.B., Stanford, 1931
[4]Peat, Elizabeth Thelma — San Francisco — LD — 209 Roble-*603*
Peat, Hugh John — San Francisco — LD 88+147 — Theta Xi
Peattie, Jillson MacIntosh — Palo Alto — LD 72+34 — 460 Maple, P-p
[1]Peck, Edward Higby — Pomona — Geol. 86+66 — Stanford Univ.-*1855*
[4]Peck, Homer Newton — Arvada, Colo. — Educ. gr. — 659 Salvatierra
A.B., Drake, 1923; A.M., Colorado State Teachers College, 1929
Peck, John Daniel — S. San Francisco — Germ. 139+142 — 140 Branner
Peck, John Higby — San Francisco — Econ.-Acct. 27·186+324 — 19 Tyn-*66*
A.B., Stanford, 1931
Peckham, Donald Buttner — San Jose — Econ. 90·92+114 — 415 N. 15th, SJ-sj
A.B., Stanford, 1931
Peckham, James Benjamin, Jr. — San Jose — Law gr. — 415 N. 15th, SJ-sj
A.B., Stanford, 1930
Peckham, John Henry, Jr. — Los Angeles — LD 46+28 — 322 Encina-*2109*
[5]Peckler, Edward James — Stockton — Law gr. — 205 Emerson, P-p
A.B., Stanford, 1929

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|---|---|---|---|
| [1]Pedden, John R. | Grand Rapids, Mich. | Pre-Clin. 154+178 | 212 Brnr.-*1552* |
| Peddicord, Jean | Stanford Univ. | LD 41+36 | 241 Roble-*111* |
| Pedersen, Thorwald<br>A.B., Stanford, 1931 | Visalia | Hist. 181+236 | 551 Hanover, P-p |
| [4]Peeke, Edwin Slater<br>B.S., Detroit, 1930 | Long Beach | Chem. gr. | 436 Tennyson, P-p |
| [1]Peet, Elizabeth | Palo Alto | Hist. 70·70+93 | 470 Coleridge, P-p |
| Pellegrini, Louis William | Santa Rosa | LD 79+95 | 104 Sequoia-*1291* |
| Pence, Lawrence Cyrus | Spokane, Wash. | Pre-Md.101·42+16 | 627Homer,P-p |
| [12]Pendleton, James Henry<br>A.B., Wichita, 1919; A.M., Stanford, 1930 | Wichita, Kans. | Educ. gr. | 1528 College, P-*1165* |
| Penfield, Louis Snow | Mill Valley | Soc.S. 141+105 | Kingscote |
| [34]Peng, Kwang Chue<br>B.C.S., National Central University, 1925 | Changsha, China | Pol.S. gr. | 742 Bryant, P-*34* |
| [4]Penn, Milton O.<br>A.B., Northern Arizona State Teachers College, 1928 | Duncan, Ariz. | Educ. gr. | 1130 Webster, P-p |
| Penn, William Y.<br>A.B., Stanford, 1930 | Austin, Texas | Geol. gr. | 423 Ruthven, P-*1170* |
| [5]Penrose, Ernest Francis<br>A.B., Cambridge, 1925, A.M., 1930 | Palo Alto | Food Res. gr. | 1080 Emerson, P-p |
| [2]Percy, Walker | Memphis, Tenn. | Pol.S. 138–26 | Zeta Psi-*B* |
| Perego, Jackson Beals | San Francisco | LD 44+53 | 201 Encina-*2199* |
| Perelli-Minetti, Conchita | Delano | LD 32–6 | 344 Roble-*1180* |
| [12]Perelli-Minetti, Mario Joseph<br>A.B., Stanford, 1931 | Delano | Econ. 184+162 | Phi Kappa Psi |
| Perkins, Franklin Clair | La Grande, Ore. | LD 40+7 | 120 Encina-*1457* |
| [4]Peron, Lena<br>A.B., California, 1918 | Modesto | Fr. gr. | 738 Guinda, P-p |
| [5]Perren, Vernon Earl<br>A.B., Stanford, 1929 | San Jose | Law gr. | 523 Encina-*2668* |
| [4]Perry, Arthur Choat<br>A.B., Kansas, 1914 | Hollywood | Econ. gr. | Beta Theta Pi-*1335* |
| [34]Perry, Douglass Brill | Menlo Park | Math. 135·15+16 | MP-Rt. 2, mp |
| [4]Perry, Francis B. | San Francisco | Cl.Lit. 5·158+132 | 239 Toyon-*1573* |
| Perry, Gilbert Broadwell<br>A.B., Stanford, 1930 | Phoenix, Ariz. | Law gr. | 207 Union-*527* |
| [4]Perry, Martin William<br>A.B., Nebraska Central, 1910 | Escondido | Educ. gr. | 211 Union-*1821* |
| Perry, Robert Hazlett<br>A.B., Stanford, 1931 | Palo Alto | Pol.S. 181+90 | Kappa Sigma-*1326* |
| [1]Peteler, Francis Judson | Santa Barbara | Pre-Med. 87· | 214 Branner |
| §[23]Peters, Joseph Forman | Stockton | Econ. 69·54–18 | Sigma Chi-*628* |
| [5]Peters, Keith Wadsworth<br>A.B., Stanford, 1930 | Peoria, Ill. | Law gr. | 558 Encina-*2457* |
| Peters, William Howard<br>A.B., Stanford, 1931 | Glendale | Econ. 93·90+15 | 935 Ramona, P-p |
| Petersen, Harry George | San Leandro | LD 92+31 | Theta Delta Chi |
| Petersen, Henry Charles, Jr. | Stockton | Zoöl. 45·80+2 | 1527 Waverley, P-p |
| Peterson, Joseph Lowery<br>A.B., Stanford, 1931 | Pueblo, Colo. | Psych. 180+172 | Sigma Nu-*577* |
| Peterson, Melvin Theodore<br>A.B., Stanford, 1931 | Eureka | Chem. 90·97+61 | 407 Sequoia-*869* |
| Peterson, Raymond A.<br>A.B., Stanford, 1931 | Idaho Falls, Idaho | E.E. gr. | 680 College, P-*2543* |
| Peterson, William Hosmer<br>A.B., California, 1929 | El Centro | Law gr. | 451 Encina-*2252* |

§ Deceased, May 18, 1931.

Petit, Charles Francis — Ventura — Econ. 115·71+105 — 225 Toyon-*618*
A.B., Stanford, 1931
[4]Petsch, Philip Robert — Brentwood — Germ. gr. — 813½ Cowper, P-p
J.D., Würzburg, 1923
Pett, Stuart Brandon — Salt Lake City, Utah — LD 89+50 — Phi Delta Theta
[4]Pettengill, Robert Bunnell — Tucson, Ariz. — Econ. gr. 665 Hanover, P(Sta.A)p
A.B., Arizona, 1926
Petterson, Stephen Kelsey — Hynes — Soc.S. 90·44+21 — 429 Encina-*1615*
[5]Pettker, John Henry — St. Louis, Mo. — C.E. gr. — 212 Union-*2601*
A.B., Stanford, 1931
Petty, Claude Rowland — Oakland — Engl. 90·113+34 — Branner
Phelps, Lou — Hermosa Beach — LD 72+57 — Alpha Tau Omega-*1384*
Phelps, Wilson Willets — Los Angeles — Econ. 15·166+75 — Al.T.Omega-*1384*
A.B., Stanford, 1931
Philbrook, Warren Rutland — Modesto — Min. gr. — 308 Sequoia-*2216*
A.B., Stanford, 1930
[4]Philippi, Richard Ira — Norwalk — LD ‡ — 222 Toyon-*2668*
Philippi, Vincent Jose — Norwalk — Econ. 90·48+20 — 436 Encina-*2668*
[4]Phillips, E. James — Oklahoma City, Okla. — Educ. gr. — 721 Clmba, P-(Sta.A)p
A.B., Southwestern State Teachers College, 1924; M.S., Oklahoma, 1928
Phillips, James Winston — Spokane, Wash. — LD 48+1 — 17 Encina-*1266*
[23]Phillips, Lloyd Becker — San Francisco — LD 28–5 — 449 Encina
Phillips, Mary May — San Mateo — LD 45+61 — 227 Roble-*948*
[23]Phipps, Mary Elizabeth — San Francisco — LD 29+12 — 157 Roble-*1401*
Pickles, Sidney Benson — Monterey — Phys. 91·90+64 — 115 Branner-*855*
A.B., Stanford, 1931
Pierce, Bruce — Three Rivers — LD 47+17 — 31 Encina-*2757*
[13]Pierce, Claire Mary — Los Angeles — Germ. gr. — 500 Palo Alto, P-*1367*
A.B., Stanford, 1930, A.M., 1931
[4]Pierce, Fred Herbert — Santa Barbara — Educ. gr. — 458 Lowell, P-p
A.B., Santa Barbara State Teachers College, 1929
Pierce, Glenroy Nelson, Jr. — San Francisco — LD 89+52 — 404 Sequoia-*1000*
[1]Pierce, Norman Clifford — Springville, U. — Germ. gr. — University Hotel, P-p
A.B., Brigham Young, 1930
[5]Pierce, Robert Ernest, Jr. — Lindsay — Econ. 180–6 — Delta Chi-*1304*
[4]Pierce, Zelma Wescott — Santa Barbara — Educ. gr. — 458 Lowell, P-p
A.B., Santa Barbara State Teachers College, 1929
Piercy, Robert Lee — Youngstown, Ohio — LD 96+83 — 215 Branner-*733*
Pierose, Perry Nick — Los Angeles — LD 84+30 — Delta Tau Delta-*1363*
Pihl, Donald Samuels — Mountain View — Pol.S. 90·95+79 — 770 Bailey, MV-mv
A.B., Stanford, 1931
[5]Pike, John Jacob — Los Angeles — Econ. 98+106 — Alpha Delta Phi-*J*
[4]Pike, Mary Elizabeth — Saratoga — LD — Saratoga-s
Pike, Thomas Potter — Los Angeles — Econ. 180+176 — Alpha Delta Phi-*J*
A.B., Stanford, 1931
Pillsbury, Elizabeth Marie — Long Beach — Hist. 137+117 — Gam. Phi Beta-*1337*
Pinkston, Beth Tollan — Los Angeles — Pre-Med. 165+247 — Al.Om.Pi-*1367*
[2]Pischel, Bradley Dart — Salt Lake City, U. — Pol.S. 26·154+3 — 520 Cowper, P-p
A.B., Stanford, 1931
[4]Pischel, Rose Marie — San Francisco — LD 45·14–1 — 921 Scott, P-*2504*
[4]Pistorius, Gunilda Rosalia — St. Helena — LD ‡ — Roble
[1]Piver, Arthur Lincoln — San Francisco — Econ.‡6–19 — 648 Alvarado
Place, Robert Morris — Long Beach — LD 47+31 — 302 Encina-*2022*
Plank, Ellsworth H. — Junction City, Ore. — Pol.S. gr. — 656 Bryant, P-p
B.S., Oregon, 1930, M.S., 1930
Platz, Charles Parker — Ft. Collins, Colo. — S.Biol. 102·53+20 — 234 Brnr.-*1871*
Pleasant, Nellie Katharine — Phoenix, Ariz. — LD 7·49+86 — 264 Roble-*2823*

Plumb, Edward Lyman — S. Pasadena — LD 75–2 — Zeta Psi-*B*
Plumb, Preston B., Jr. — S. Pasadena — Econ. 135+27 — Zeta Psi-*B*
Plymat, William Norton — Palo Alto — LD 38–19 — 1202 Byron, P-p
Plymire, Harry Lawson — Palo Alto — Pol.S. 90·91+29 — 1341 Univ., P-p
A.B., Stanford, 1931
Pockman, Leonard Trainer — Los Angeles — LD 92+169 — AlphaKap.Lam.-*2761*
Pockman, Tom Oliver — Los Angeles — Soc.S.-Jn.90·47+0 — 435 Encina-*1113*
[1]Poinsett, Howard B., Jr. — Pinole — Econ. 99–8 — Sigma Chi
[12]Polhamus, Robert Grey — San Marino — LD 76+12 — Sigma Nu-*1385*
Pollak, John D. — San Francisco — Med. gr. — 50 Capra Way, SF-sf
A.B., Stanford, 1928
[12]Pollard, Bernard Britton — Wayne, Neb. — Soc.S.-Jn. 49·131+77 — 226Tyn.-*2135*
A.B., Stanford, 1931
Pollard, Henry Lyon — Chandler, Ariz. — LD 103+26 — 112 Toyon-*1946*
Pollard, Marvin Edwin — Oak Park, Ill. — LD 87+3 — Theta Chi-*1383*
Polley, Allison Brownell — Long Beach — S.Engr. 85·46+34 — PhiSig.Kap.-*122*
Pollock, Mary-Jane C. — Bloomington, Ill. — Soc.S. 181+97 — Alpha Phi-*1387*
A.B., Stanford, 1931
Polson, Donald Allan — Phoenix, Ariz. — Pre-Med.90·48+36 — 416Encina-*2304*
[4]Polster, Arthur Henry — Sacramento — Educ. gr. — 1528College,P-(Sta.A)p
A.B., Central Wesleyan, 1920; A.M., Stanford, 1930
Polverino, Joseph John — San Jose — Law gr. — 109 Branner
A.B., Stanford, 1930
[4]Ponedel, Frederic Leo — San Francisco — LD — 121 Toyon
Ponti, Joseph — Vallejo — S.Let. 154+146 — 116 Toyon-*2493*
[5]Poo, Gordon Wah — Canton, China — Pol.S. 90·54+41 — Chinese Club-*978*
Pool, Morris Francis — Gridley — Chem. 90·90+83 — 316 Sequoia-*1244*
A.B., Stanford, 1931
Pope, Francis — San Francisco — Econ. 54·129+23 — Chi Psi-*1648*
A.B., Stanford, 1931
Pope, Norris Francis — Santa Cruz — Pol.S. 181+38 — Sig.AlphaEps.-*1305*
A.B., Stanford, 1931
[23]Pope, William R., Jr. — Great Falls, Mont. — LD 29+25 — 360 Kellogg, P-p
Popenoe, Herbert — Palo Alto — Educ. gr. — 126 Baywood, P-p
A.B., Stanford, 1922; A.M., Southern California, 1926
[12]Popoff, Constantine A. — Harbin, China — LD 7–43 — 111 Encina-*837*
Portal, DeWitt Alfred — San Jose — Educ. gr. — Menlo School, MP-mp
A.B., San Jose State Teachers College, 1930
Porter, James Duncan — Sunnyvale — LD 42+10 — Sunnyvale-Box 197, s
Porter, John Lemoyne — Alma, Neb. — Chem. gr. — 437 Encina-*663*
B.S., Princeton, 1926
Porter, Noel Edmund — San Francisco — LD 44+32 — 201 Encina
Post, Anita Calneh — Tucson, Ariz. — Span. gr. — Madroño-*1217*
Ph.B., Arizona, 1909, A.M., 1917
Post, Thomas Barnes — Geneva, N.Y. — Hist. 116–2 — Chi Psi-*1647*
[4]Postley, Clarence Sterling — Burlingame — Law gr. — 812 Irwin Drive, B-b
A.B., Harvard, 1928
[7]Potter, Ermine Lawrence — Corvallis, Ore. — Econ. gr. — Staller Apts., P-p
B.S., Montana State, 1906; B.S., Iowa State, 1908, M.S., 1920
Powell, John Lindsey — Hollywood — LD 71–12 — Beta Theta Pi-*1335*
Powell, Margaret Elizabeth — Azusa — LD 49+38 — 348 Roble-*1854*
Powell, Robert Jameson — Alameda — Econ. 166+70 — Sig.Alpha Eps.-*1305*
Power, Maurice Strathallan — San Francisco — Hist. gr. — 320 Sequoia
A.B., Stanford, 1930
Powers, C. Louise — Pacific Grove — Pre-Med. 90·47+58 — 270 Roble-*1593*
Powers, Given Durfee — Decatur, Ill. — Econ. 90·41–8 — 515 Lytton, P-*982*
Powers, Hugh DeWitt — Coronado — LD 45+50 — 108 Encina-*2103*

[134]Powers, Marylyn — Los Angeles — Hist. 9·152+67 — KappaAlphaTheta
Powers, Maxine Louise — Los Angeles — Hist. 109+73 — KappaAlphaTheta
[12]Powers, Philander — Portland, Ore. — LD 29–9 — 247 Encina-*1021*
Poynter, William Frank — Davenport, Wash. — Psych. 135+35 — 591b Slvtra-*2453*
Prael, Charles Frederick — San Mateo — Law gr. — Mills Hosp., SM-sm
A.B., Stanford, 1929
[1]Pratt, Donald Roy — San Francisco — Pre-Clin. 161+185 — 247 Toyon-*1103*
[1]Pratt, Raymond Baker — Phoenix, Ariz. — LD 0–28 — 251 Encina-*1443*
Prelsnik, Charles Joseph — San Francisco — LD 81+4 — Kappa Alpha
[1]Prescott, Basil Osborne — Palo Alto — LD 48–30 — 401 Lytton, P-p
Prescott, Frank Kendrick — Fresno — LD 40–4 — 350 Encina-*1711*
Prescott, Walton — San Francisco — Med. gr. — 3064 Sacramento, SF-sf
A.B., Stanford, 1929
Preston, Hartwell Lindley — Hughson — Engl.-P.Sp. 90·61+5 — 428 Enc-*2123*
Price, Bronson — Rochester, N.Y. — Psych. gr. — 9 Union-*1832*
B.S., Antioch, 1929
[1]Price, Ernest Batson — Hermosa Beach — Hist. gr. — 475 Forest, P-p
A.B., Rochester, 1913
Price, John Basye — Stanford Univ. — Zoöl. gr. — 532 Alvarado
A.B., Stanford, 1928, A.M., 1929
[5]Price, Marie Louise — Athens, Ohio — Pol.S. gr. — 660 Salvatierra
A.B., Ohio, 1912, B.S., 1914; A.M., Columbia, 1918
[1]Price, Muriel — Palo Alto — Engl. 89·91+2 — Los Robles, P-p
A.B., Stanford, 1931
[1]Price, Robert Maurice — Markleeville — Econ. 150–18 — Theta Chi-*1383*
Priest, Howard L. — Oilfields — S.Engr.114–44 — 529Middlefield,P-p
[5]Prieth, Benedict Nolan — Traunstein, Bavaria — Pol.S. 118·44+10 — 219 Ramona, P-p
Prince, John Dudley — Los Angeles — Bact. 99·82+72 — 943 Bryant, P-*1481*
A.B., Stanford, 1931
[1]Prince, Richard Nourse — Alameda — Chem. 186+19 — Phi Kappa Psi
A.B., Stanford, 1931
[4]Prindiville, Laurette E. — San Francisco — LD ‡ — Roble
[3]Prior, William Wilson — Escondido — Educ. gr. — 324 Union-*1161*
A.B., Stanford, 1929
Prisinzano, Gandolfo — San Francisco — Med. gr. — 700 Mason, SF-sf
A.B., Stanford, 1930
[5]Proctor, William Adams — Stanford Univ. — LD 43+49 — 747 Dolores
Proper, Louis William — Modesto — S.Engr. 90·45+22 — 430 Encina-*953*
[4]Pruitt, Mable Ellen — Santa Ana — LD — 328 Roble
[4]Pugh, William Richard — Santa Clara — Educ. gr. — 42 Pruneridge, SC-sc
A.B., San Jose State Teachers College, 1928
Purcell, John Paul — San Francisco — LD 48+33 — 301 Encina
[4]Purdy, Mary — Peru, Ind. — Hist. gr. — 205 Roble-*684*
A.B., Mills, 1931
Purvis, Don Thornton — Johnstown, Colo. — S.Bus. gr. — 204 Union-*2621*
A.B., Stanford, 1929
Puthoff, Thomas Eugene — San Bernardino — Pre-Clin. 189+88 — 129Branner-*2665*
A.B., Stanford, 1931
Putnam, Thorington Caldwell — Exeter — Ed.-G.A.20·123+96 — ThetaChi-*1383*
[23]Putnam, William Clement — Exeter — Geol. gr. — Theta Chi-*1383*
A.B., Stanford, 1929, A.M., 1930
[5]Pyle, Dorothy — Fairfield — Hist. 47·128+15 — 372 Roble-*2735*
[4]Qualls, Orron Alvan — Oroville — Educ. gr. — 531 Cowper, P-p
A.B., Fresno State College, 1930
[5]Quandt, William Carl — Pueblo, Colo. — Educ. gr. — 1506 College, P-*2592*
A.B., Denver, 1927
Querna, Milburn Howard — Madison, Minn. — Med. gr. — 2180 Washington, SF-sf
A.B., Stanford, 1930

[4]Quibell, Charles Hicks — Fresno — Bot. gr. — Pacific Grove-pg
A.B., Pomona, 1927
Quigley, John Scott — Alameda — Med. gr. — 2321 Sacramento, SF-sf
A.B., Stanford, 1926, A.M., 1929
[12]Quigley, Richard Havelock — Oakland — Econ. 108+62 — AlphaTauOm.-*1065*
Quinn, Edward Morgan — Stockton — Med. gr. — 2201 California, SF-sf
A.B., Stanford, 1928
[4]Quinn, Helen Veronica — San Francisco — Educ. gr. — 254 Roble
A.B., San Francisco State Teachers College, 1928
[5]Quinn, Jack Clark — San Francisco — Chem. 93+63 — Sigma Al. Eps.-*1305*
Quinn, Robert William — Eureka — LD 43+11 — 305 Encina-*1072*
Quinn, William Joseph — San Francisco — LD 42–12 — 353 Encina-*2143*
[12]Quirk, Akeley Park — Los Angeles — Econ. 131+35 — Delta Upsilon
Rachford, Nolan Eugene — Mountain View — Pol.S. 181+26 — 259 Loreto, MV-mv
A.B., Stanford, 1931
[12]Radius, Walter A., Jr. — San Francisco — Econ. 129+148 — Al.KappaLam.-*658*
[12]Radlin, Myron Leonard — Los Angeles — Chem. 116+3 — 212 Toyon-*1804*
Railey, Isham — Mountain View — Phys. gr. — 690 Mercy, MV-mv
A.B., Cornell, 1928
[5]Ramsey, Henry Colwell — Palo Alto — Engl.146+218 — 710Yale,P-(Sta.A)p
Raney, Mary Evangeline — Morgan Hill — Bact. gr. — 548 Webster, P-p
A.B., Stanford, 1928, A.M., 1930
[2]Rankin, Lowell Harvey — Burlingame — Chem. gr. — 1117 Douglas, B-b
B.S., California, 1923
[1]Ranney, Charles R. — Cleveland, Ohio — Econ. 106+4 — Sigma Nu-*1385*
Rantz, Lowell Addison — Placerville — Pre-Med. 136+121 — Carmel-c
[4]Rasmussen, Bernard I. — Mt. View — Educ. gr. — 439 Oak, MV-mv
A.B., Hutchinson Theological Seminary, 1921
Rath, Mary Stearns — Pasadena — LD 45+51 — 255 Roble-*1813*
Rathbun, Helen Katherine — Williams — Zoöl. gr. — Pacific Grove-pg
A.B., Mills, 1930; A.M., Stanford, 1931
[1]Rawlings, Stuart Lamar, Jr. — Piedmont — LD 87–27 — Alpha Delta Phi-*J*
Ray, Alvin Wilton — San Francisco — Econ. 122+35 — Phi Kappa Psi
[4]Ray, Herndon Carroll — McCloud — Educ. gr. — 2370 Waverley, P-*2397*
A.B., Stanford, 1929
[4]Ray, Thelma Tipton — El Centro — Ed.-G.A. gr. — 710Yale,P-(Sta.A)p
A.B., California, 1921
Ray, William R. — Salt Lake City, Utah — Hist. 98·48+10 — 421 Kipling, P-*1018*
[23]Raymond, Hope — Evanston, Ill. — Cl.Lit. gr. — 18 Kingscote
A.B., Northwestern, 1930
Rea, James William — San Jose — LD 79–1 — Beta Theta Pi-*1335*
Rea, Stanley Leroy — Ukiah — LD 97+120 — 113 Branner-*2159*
Read, Robert DeLeo — Tacoma, Wash. — S.Biol. 10·165+23 — 217 Toyon-*2488*
Reagh, John Dallas — Seattle, Wash. — Soc.S. 144+153 — 136 Toyon-*915*
[5]Rear, Thelma Mary Jane — Los Angeles — Engl. gr. — 524 Middlefield, P-p
A.B., Southern California, 1928, A.M., 1929
Rebholtz, R. Norris — Stockton — Econ. 135·45+41 — 124 Emerson, P-p
A.B., Stanford, 1931
Recknagel, Carl Albert — Vallejo — S.Engr. 151+5 — 250 Branner-*2668*
[5]Rector, Elbridge Sevier — Merced — Soc.S. 123·49–10 — 1205 Fulton, P-p
[12]Reddick, Theophilus — Gold Beach, Ore. — Educ. gr. — 124 Emerson, P-p
B.S., Montana State College, 1918
[12]Redeker, Harry Erwin — Palo Alto — Chem. gr. — 319 Ramona, P-p
B.S., Idaho, 1912; A.M., Stanford, 1928
Redfern, Wendell Murdock — Placentia — Pre-Med. 90·31–7 — 335 Kipling, P-p
Redhead, John Joseph — Portland, Ore. — LD 91+41 — Kappa Sigma-*1326*
Redman, F. Munro — Portland, Ore. — S.Engr. 99·104+3 — 24 Branner-*944*
A.B., Stanford, 1931

Reed, Earl Elbert — Nampa, Ida. — Law gr. — 781 Addison, P-*1042*
A.B., Stanford, 1930
Reed, Greta Louise — Youngstown, Ohio — Econ. 120+21 — Alpha Om. Pi-*1367*
[4]Reed, Harry Booker — Los Angeles — Engl. gr. — 189 Cowper, P-p
A.B., Denver, 1926, A.M., 1927
Reed, James — San Francisco — Econ. 133+37 — Theta Xi
[1]Reed, Marian Elizabeth — Palo Alto — Educ. gr. — 525 University, P-p
A.B., Stanford, 1930, A.M., 1931
Reed, Parker Clarke — Covina — Psych. 184+135 — 258 Toyon-*2665*
A.B., Stanford, 1931
Reed, Warren DeWitt — San Jose — M.E. gr. 625 Middle Ave., MP-mp
A.B., Stanford, 1931
[1]Reeder, Ferd John — Aberdeen, S.D. — Educ. 90·53–19 — Sigma Chi
Reedy, Allen Dale — Tacoma, Wash. — LD 50+78 — 30 Encina
[4]Reel, Cecil Edward — Detroit, Kans. — LD ‡ — 565 Salvatierra
[4]Reene, Mary Elizabeth — San Francisco — Educ. gr. — Kingscote
A.B., Stanford, 1929
[4]Rees, Elinor Celyn — Los Angeles — Engl. gr. — 517 Salvatierra
A.B., Southern California, 1921, A.M., 1923
[12]Reeve, Frank Driver — Albuquerque, N.M. — Hist. gr. — 426 Encina-*2391*
A.B., New Mexico, 1925, A.M., 1928
[4]Regnart, Marjorie Jean — San Jose — Ed.-G.A. gr. — 1013 Ramona, SJ-sj
A.B., San Jose State Teachers College, 1928
[4]Regner, Joseph L. — San Mateo — Educ. gr. — 223 Irving, SM-sm
A.B., San Jose State Teachers College, 1929
Reich, August — San Francisco — Med. gr. — 2345 Washington, SF-sf
A.B., Stanford, 1928
Reich, Henry Leopold — San Francisco — LD 90+152 — 130 Branner-*2371*
Reich, Marion Ralph — San Francisco — LD 109+88 — 130 Branner-*2371*
Reich, Thomas — Bakersfield — Bact. 39·85+11 — 134 Toyon-*1016*
[1]Reid, Clarence A. — Pueblo, Colo. — Educ. gr. — 937 Cowper, P-p
A.B., Colorado State Teachers College, 1928
[1]Reimer, Herbert Carl — Chico — Educ. gr. — 580 O'Farrell, SF-sf
A.B., Nevada, 1924
[3]Reinhart, Allan Manfred — San Francisco — LD 48–10 — 23 Toyon-*2668*
[4]Reinhart, Philip Wingate — Palo Alto — Geol. gr. — 163 Park, P-p
A.B., Stanford, 1927, A.M., 1928
[4]Reiterman, Carl — Superior, Ariz. — Educ. gr. — 1121 Bryant, P-p
A.B., Stanford, 1921
Rempel, David Gerrard — Palo Alto — Hist. gr. — 605 Gilman, P-*41*
A.B., Bluffton, 1927; A.M., Wisconsin, 1928
Rench, James Henry — Burlingame — Econ. 90·97·27 — 736Farringdon,B-b
A.B., Stanford, 1931
Rendahl, O. Byron — Twin Falls, Idaho — LD 51+29 — 217 Encina-*1407*
[12]Rendle, Irvine Alfred — Rawlins, Wyo. — Pol.S. 94·86+0 — Delta Upsilon
A.B., Stanford, 1931
Renfrow, Russell Evans — Miami, Okla. — Econ.-Soc. 90·60+45 — 3 Union-*918*
Renshaw, Robert Richard — Monrovia — S.Engr. 135·44+13 — 845 Wyrly, P-p
Renstrom, Frank Oscar, Jr. — San Francisco — LD 92+53 — 214 Branner-*1169*
[1]Reppy, Joan — Los Angeles — LD 69+15 — Kappa Alpha Theta
Reppy, William Arneill — Los Angeles — LD 42+57 — 219 Encina-*2189*
[12]Revell, J. Harold — Los Angeles — Mil.S. 5·182+50 — 17 Encina
A.B., Stanford, 1931
Rex, A. Elden — Logan, Utah — S.Bus. gr. — Menlo Park-*1123*
B.S., Utah Agricultural, 1928
Reyburn, Harlan — Mountain View — Math. gr. — 240 Chiquita, MV-mv
A.B., Fresno, 1930; A.M., Stanford, 1931
Reynolds, June Aileene — Palo Alto — LD 92+7 — 853 Middlefield, P-*1826*

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|---|---|---|---|
| Reynolds, Kenneth Mike | Pasadena | Econ. 167+41 | Phi Delta Theta |
| Reynolds, Robert Perrin<br>A.B., Stanford, 1931 | Palo Alto | Econ. 183+65 | 554 Kingsley, P-p |
| Rhoades, Robert Force | Everett, Wash. | Econ. 150+79 | 205 Branner-*2691* |
| Rhodes, Kenneth Olney | Pasadena | LD 47+64 | 328 Encina-*2137* |
| Rice, John Willard | San Diego | LD 44–5 | 224 Encina-*1732* |
| [5]Rich, Katharine Wiley | Berkeley | Engl. 156+103 | Kappa Alpha Theta |
| [1]Richards, Dowell Spencer | Long Beach | Econ. 36·101+1 | PA-Box 52L, p |
| Richards, George L., Jr.<br>A.B., Stanford, 1931 | Los Angeles | Geol. gr. | 715 Salvatierra |
| [1]Richards, Mernon C.<br>A.B., Stanford, 1928 | Long Beach | S.Bus. gr. | Delta Kappa Epsilon |
| Richards, William Sidney<br>A.B., Stanford, 1931 | San Jose | Econ. 29·155+150 | Kappa Alpha |
| Richardson, Arthur Pawley | Maui, T.H. | Pre-Med. 141+199 | Delta Chi-*1304* |
| [5]Richardson, Eri Horner, Jr. | Palo Alto | Soc.S. 162+12 | 552 Kellogg, P-p |
| Richardson, George C.<br>A.B., Stanford, 1927 | San Francisco | Med. gr. 2180 | Washington, SF-sf |
| [1]Richardson, Harvey L.<br>A.B., Michigan, 1927 | Modesto | Law gr. | 353 Lytton, P-p |
| [13]Richardson, J. Wilfred<br>A.B., San Jose State Teachers College, 1929; A.M., Stanford, 1931 | San Jose | Chem. gr. | 460 N. 1st, SJ-sj |
| [5]Richardson, Palmer | Minneapolis, Minn. | Econ. 122+48 | Theta Xi |
| [1]Richardson, Ralph Waldo | Palo Alto | Pol.S. 105–33 | PA-R.F.D. 241, p |
| [1]Richmond, James Morgan | Los Angeles | Pol.S. 98·14+18 | 1465 Webster, P-p |
| [23]Richmond, Mary Lee | Arlington | Engl. 165+188 | Gam. Phi Beta-*1337* |
| Ricketts, Charles Walter<br>A.B., Stanford, 1928 | Los Gatos | Law gr. | 408 Sequoia-*645* |
| [12]Ricketts, Victor Lafayette | Palo Alto | Engl. 187+43 | 1020 Waverley, P-p |
| [5]Ricklefs, Robert Ulric<br>A.B., Stanford, 1931 | Palo Alto | Educ. gr. | 1055 Forest Ct.,P-*Zero* |
| [12]Riddell, William A.<br>A.B., Manitoba, 1925, B.S., 1926; M.S., Saskatchewan, 1928; Ph.D., Stanford, 1931 | Vancouver, B.C. | Chem. gr. | 1004 Emerson, P-p |
| Riddle, Sturgis McKinney<br>A.B., Stanford, 1931 | Long Beach | Cl.Lit. 191+327 | 250 Toyon |
| [13]Ridley, Ian Marston | Alameda | Soc.S. 156+110 | 564 Univ., P-p |
| [5]Riede, Harold Francis<br>A.B., Stanford, 1931 | San Rafael | Law gr. | Phi Gamma Delta |
| [1]Riepe, Milton Oscar<br>A.B., Arizona, 1931 | Burlington, Iowa | Law gr. | Alpha Sigma Phi-*1357* |
| Rietveld, Sara Katheryn | San Francisco | LD 44+9 | Roble |
| Riggins, George A. N. | Napa | LD 88+105 | 361 Addison, P-*707* |
| [4]Righter, Cornelius Erwin<br>A.B., Stanford, 1921 | Stockton | Phys.Ed. gr. | 241 Toyon-*977* |
| Rinehart, Ward Albert<br>A.B., Washington State, 1919 | Santa Barbara | Educ. gr. | 1044 High, P-p |
| [14]Ring, William Alfred | Los Angeles | Pol.S. 90·15–10 | 335 Lytton, P-p |
| Rintala, Rudolph A. | San Francisco | Econ.-Acct. 134+50 | Kap.Sig.-*1326* |
| Ripley, Alexander Baillie | Tacoma, Wash. | LD 72–4 | Alpha Delt Phi-*J* |
| [4]Ritland, Hubert Oliver<br>A.B., Stanford, 1926 | La Mesa | Phys. gr. | 103 Wilson, RC-rc |
| [134]Rittenhouse, Emmet Louis | Santa Cruz | Hist. 104+27 | 601 Laurel, P-p |
| Ritter, Lucy Elizabeth<br>A.B., Stanford, 1930, A.M., 1931 | Stockton | Pol.S. gr. | 169 Roble-*1386* |
| §[12]Ritter, Robert Carbonell<br>A.B., Stanford, 1930 | Ross | Med. gr. | 440 Melville, P |

§ Deceased, February 20, 1931.

Roach, David John Azusa Educ. gr. 226 Sequoia-*1071*
A.B., Stanford, 1930, A.M., 1931
[1]Roach, John Arthur Hollywood LD 50–23 Kappa Sigma-*1326*
[12]Robb, James Milton Manila, P.I. Pol.S. 114·75+40 321 Union
A.B., Stanford, 1931
Robb, John Edward Minneapolis, Minn. LD 94–6 Alpha Delta Phi-*J*
[123]Robbins, Milard D. Cookeville, Tenn. Educ. gr. 565 Salvatierra-*146*
A.B., Stanford, 1931
[4]Robert, Alyce Colette San Francisco Germ. gr. 309 Roble
A.B., California, 1928, A.M., 1930
Roberts, Alexander Hunter Sunnyvale Chem.gr. 375Frances,S-Box158,s
A.B., San Jose State Teachers College, 1930; A.M., Stanford, 1931
Roberts, Chauncey Stephen Palo Alto LD 17·74–9 317 Sequoia
[5]Roberts, Earl George Eureka Econ. 8·146+78 531 Cowper, P-p
[4]Roberts, Frank Arthur San Francisco Educ. gr. Union
B.S., Washington State, 1920, A.M., 1925
Roberts, James Morton Seattle, Wash. Econ. 13·172+238 Phi Gam. Delta
A.B., Stanford, 1931
Roberts, John Ferguson, Jr. Carlsbad S.Engr. 134+27 1335 Cowper, P-p
Roberts, Sherwood La Jolla LD 45+57 306 Encina-*1631*
Roberts, William Abbott Palo Alto Econ. 155–13 544 Lowell, P-p
[3]Roberts, William Brice Palo Alto Zoöl. gr. 159 Melville, P-p
B.S., New Hampshire, 1927; M.S., New York, 1929
[4]Robertson, J. Wesley Huntington,Utah Educ. gr. 442 Tasso, P-p
B.S., Brigham Young, 1928
Robertson, Kenneth Scott Spokane,Wash. LD 46+38 121 Encina-*2211*
Robins, Earl Marvin Los Angeles Law gr. 759 Middlefield, P-p
A.B., Stanford, 1930
Robins, John Prescott Salem, Ore. Educ. gr. 335 Lytton, P-p
A.B., Willamette, 1924; A.M., Stanford, 1931
Robinson, Beverly Callicutt Hanford Econ. 145+25 222 Toyon-*2692*
Robinson, George Centerville LD 43+9 Centerville-Box 236, c
Robinson, Homer C. Salt Lake City, Utah Pol.S. 90·90+45 530 Webster, P-p
A.B., Stanford, 1931
Robinson, Joseph Lawrence Delano LD 44–20 233 Encina-*64*
Robinson, Joseph William Los Angeles Pol.S. gr. 436 Waverley, P-*889*
A.B., Stanford, 1930, A.M., 1931
Robinson, Marjorie Los Altos Engl.-P.Sp.108+59 Kap.Kap.Gam.
[4]Robinson, Nicholas John Holland, Mich. M.E. gr. 727 Seneca, P-p
Graduate, U.S. Military Academy, 1925
[4]Robinson, Reuben T. San Antonio, Tex. Educ.gr. 1680College,P-(Sta.A)p
A.B., Sull Ross State Teachers College, 1928; A.M., Colorado State Teachers College, 1930
Robinson, Russell Palo Alto Econ.138+25 DeltaTauDelta-*1363*
Robison, Henry Edwin Carbondale,Colo. LD 47+78 202 Encina-*727*
Robison, J. Shelburn Monterey Law gr. 1944 Emerson, P-p
B.S., Pennsylvania State, 1917
Robson, George Bernard Campbell Med. gr. 2321 Sacramento, SF-sf
A.B., Stanford, 1930
Rochefort, Mary Carroll Lawrence, Mass. LD 91+147 Kappa Kappa Gamma
Rodda, Richard Holliway Sacramento Econ. 90·41–3 317 Sequoia-*1245*
[5]Rode, Howard Schaeffer Oakland Law gr. 512 Encina
A.B., Stanford, 1929
Rode, John Kinsay Etna LD 6·111+52 301 Branner-2757
[5]Rode, W. Lincoln Oakland Econ.-Acct.187+164 301Branr-*618*
Rodgers, Robert Henry Santa Cruz LD 86+48 Kingscote-*1965*
Rodgerson, Eleanor Burgess Sacramento Pre-Clin. 90·141+113 626 Hmr, P
A.B., Stanford, 1931

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|---|---|---|---|
| [4]Roeder, Isabel<br>A.B., Arizona, 1930 | San Mateo | Educ. gr. | 216 Tilton, SM-sm |
| [5]Roff, Donald D.<br>A.B., California, 1929 | Ventura | Law gr. | 345 Forest, P-p |
| Rogallo, Francis Melvin | Sanger | LD 82·50+53 | 345 Encina-*103* |
| [4]Rogers, Charles Elkus<br>A.B., Oklahoma, 1914; M.S., Kansas State | Manhattan, Kans. | Soc.S.-Jn. gr.<br>Agricultural, 1926 | 345 Forest, P-p |
| [4]Rogers, Frances Lillian<br>A.B., California, 1925 | Long Beach | Span. gr. | 269 Roble-*1083* |
| Rogers, Ronald Howe<br>A.B., Stanford, 1931 | Stanford Univ. | Soc.S.-Jn. 90·99+73 | 549 Slvtra-*87* |
| Rogers, Thornwell Green | Beverly Hills | LD 91+34 | Zeta Psi-*B* |
| Rogers, Vance Corey<br>A.B., Stanford, 1931 | Burbank | E.E. gr. | 109 Branner-*1453* |
| Rohden, Elizabeth Helen<br>A.B., Washington, 1919 | Bellevue, Wash. | Germ. gr. | 113 Byron, P-p |
| Rohnert, Frederick Waldo | Hollister | LD 86+17 | Kappa Alpha |
| Romanofski, Anton<br>A.B., Stanford, 1928, Engineer, 1931 | San Bruno | Min. gr. | 879 Easton, SB-sb |
| Romig, Howard G.<br>A.B., Stanford, 1931 | Anchorage, Alaska | Pre-Cl.118·98+55 | Th.Del.Chi-*1828* |
| [12]Roos, John Mack | Paris, France | LD 78+21 | Kappa Alpha |
| Roos, Leslie Leon | San Francisco | LD 45+22 | 324 Encina-*2147* |
| deRoos, Robert William | Santa Monica | LD 68+16 | Alpha Sigma Phi-*1357* |
| [4]Root, Anne D. | Iowa City, Iowa | Engl. ‡ | 619 Lasuen |
| Rorden, Louis Maurice | Petaluma | LD 106+29 | 312 Sequoia-*1185* |
| Rosasco, John Loring<br>A.B., Stanford, 1929 | Healdsburg | Med. gr. | 2321 Sacramento, SF-sf |
| Roscelli, Donald Joseph | Stockton | LD 48+12 | 229 Encina-*884* |
| Roscoe, John Philip<br>A.B., Stanford, 1931 | Upper Mattole | Math. gr. | 557 Encina |
| [4]Rose, Isabel D.<br>A.B., New Mexico, 1928 | Silver City, N.M. | Engl. gr. | 584 Lasuen-*2015* |
| Rose, Norrell Edmund<br>A.B., Stanford, 1931 | Santa Ana | Engl. 52·133+21 | 319 Union |
| [12]Rose, Robert Harold<br>A.B., Indiana, 1926 | Stanford Univ. | Geol. gr. | 211 Union-*1464* |
| Rose, Stanford Leland<br>A.B., Stanford, 1931 | Tulsa, Okla. | Geol. 95·97+57 | 417 Encina-*652* |
| [4]Rose, Yancey Zamar<br>B.S., New Mexico State Teachers College, | Silver City, N.M. | Soc.S. gr.<br>1927 | 584 Lasuen-*2015* |
| Roseberry, Ruth Sybil<br>A.B., Stanford, 1931 | Los Banos | Econ. 186+166 | 207 Roble-*922* |
| Rosenberger, Homer G., Jr. | Whittier | LD 46+9 | 244 Encina-*641* |
| Rosenberry, John M.<br>A.B., Stanford, 1931 | Coeur d'Alene,Idaho | Soc.S. 180+34 | Phi Sigma Kap.-*538* |
| [23]Rosenblatt, Girard B., Jr. | San Francisco | LD 29+19 | 405 Encina-*1019* |
| Rosenblatt, Irving S., Jr.<br>A.B., Stanford, 1931 | San Francisco | Hist. 181+233 | 235 Toyon-*2496* |
| [4]Rosener, Ann | San Francisco | LD | Menlo Park-Box 394A, mp |
| [5]Rosenmeier, A. Gordon<br>B.S., Minnesota, 1928 | Little Falls,Minn. | Law gr. | Alpha Delta Phi-*J* |
| Rosenstein, Samuel W. | Brooklyn, N.Y. | Pre-Med.49·99+41 | 423Encina-*633* |
| Rosin, Stanley Alfred | Hollywood | Econ. 96·49+10 | 257 Toyon |
| [2]Ross, Colin Edward<br>A.B., Nevada, 1930 | Lovelock, Nev. | Hist. gr. | 536 Alvarado |
| [5]Ross, Darrell Emerson | Long Beach | Soc.S. 90+26 | 654 Cabrillo-*1642* |
| [4]Ross, Dean W.<br>A.B., San Jose State Teachers College, 1931 | Gilroy | Educ. gr. | 550 S. 6th, SJ-sj |

Ross, Emily Lee — Reno, Nevada — LD 45+81 — 248 Roble-*1524*
Ross, Everett Mason — Phoenix, Ariz. — LD 46+39 — 319 Encina-*602*
[4]Ross, Herman H. — Jackson, Tenn. — Pol.S. ‡ 25–10 — 150 Cowper, P-p
Ross, Joseph Foster — Covina — LD 99+145 — Theta Xi
[12]Ross, Lydia Goodwin — Phoenix, Ariz. — Soc.S. 69·111+147 — Kap. Al. Theta
A.B., Stanford, 1931
Ross, Neil Bramlet — Los Angeles — Econ. 180+65 — 223 Toyon-*2472*
A.B., Stanford, 1931
[234]Ross, Ruth Eleanor — Palo Alto — Engl. 79+3 — 1830 Cowper, P-p
Ross, Wilfred Gordon — Los Angeles — LD 65+23 — Alpha Sigma Phi
[4]Rossi, Ulrich Conrad — San Simeon — LD — 120 Toyon
[1]Rothert, Harlow Phelps — Los Angeles — Econ. 181+199 — Beta Theta Pi-*1335*
A.B., Stanford, 1931
[23]Rott, Reuben Paul — Lodi — Law gr. — 215 Union-*1181*
A.B., Stanford, 1929
[4]Rott, Ruth Alice — Lodi — LD ‡ — 216 Roble
Rouda, Earl Rich — San Francisco — LD 84·54+24 — 207 Branner
[12]Rounsefell, George Armytage — Palo Alto — Zoöl. gr. — 1119 High, P-p
A.B., Stanford, 1926; M.S., Washington, 1929; Ph.D., Stanford, 1931
[23]Rousseau, William C. — San Francisco — LD 30+3 — 140 Encina-*1443*
Rowe, Lyle Boyd — Great Falls, Mont. — LD 93+124 — 118 Toyon-*646*
Rowe, Robert David — San Mateo — Chem. 186+195 — 221 Toyon-*1511*
A.B., Stanford, 1931
Rowell, Margaret Electa — Fresno — Econ. 90·91+79 — Alpha Phi-*1387*
A.B., Stanford, 1931
Rowland, Wilbur Hunt — Palo Alto — Law gr. — 326 Hawthorne, P-p
A.B., Stanford, 1930
[4]Roy, Laura Mary — San Mateo — LD ‡ — 334 Roble
[12]Rozeboom, Egbert A. — Monmouth, Ore. — Educ. gr. — 656 Bowdoin, P-*1874*
A.B., Stanford, 1931
[5]Rubens, William Charles — New York, N.Y. — Soc.S. 90·46+48 — 500 Encina-*25*
Rubenstein, Victor Gerald — Hollywood — Pre-Med.7·134+87 — 257Toyon-*2286*
[4]Rudolph, Louis C. — Pacific Grove — Zoöl. gr. — Pacific Grove-pg
A.B., Gonzaga, 1922, A.M., 1923
Rudolph, Walter Morrow — Palo Alto — Econ. gr. — 281 Stanford, P-p
B.S., Pennsylvania, 1923; A.M., Southern California, 1927
[4]Ruffa, Edward J. — San Diego — Educ. gr. — 1027 Waverley, P-p
A.B., San Diego State Teachers College, 1927
Ruggles, Louise Van Amringe — Berkeley — LD 45+58 — 172 Roble-*1140*
Rumbley, Jane Elizabeth — Los Angeles — Geol.82·113+76 — Gam.PhiBeta-*1337*
A.B., Stanford, 1931
Rumsey, Leroy Renner — El Centro — Engl.-P.Sp.90·91+36 — 209Seq.-*1771*
A.B., Stanford, 1931
[5]Rumwell, Arnold — San Francisco — Law gr. — 150 Baywood, P-p
A.B., Stanford, 1931
Ruschin, Louis John — Newark — LD 46+32 — 103 Sequoia-*2721*
[5]Rushton, Alfred Arthur — San Francisco — Econ. 90· — 305 Sequoia
[2]Rusk, Glenn Orde — Ferndale — S.Engr. 90·92+28 — 458 Ching, P-p
A.B., Stanford, 1931
[5]Russ, Donald Lawrence — San Francisco — Soc.S. 156+23 — Chi Psi-*1648*
Russell, Albert Mitchell — San Francisco — Econ. 131+33 — 311 Sequoia-*2683*
Russell, Jack Drinker — Portland, Ore. — LD 95+32 — Alpha Sigma Phi-*1357*
[4]Russell, John Clifford — Albuquerque, N.M. — Pol.S. gr. — 203 Union-*1021*
A.B., New Mexico, 1930
[231]Russell, Joy Alden — Grants Pass, Ore. — Educ. gr. — 220 Ash, P-p
B.S., Oregon State, 1926
Russell, Wilfred William — Auburn — S.Engr. 152+18 — 232 Branner-*2229*
Rust, Frederick F. — Enumclaw, Wash. — Chem. 140+119 — 316 Sequoia-*1726*

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|---|---|---|---|
| Rust, Marjorie E. | Enumclaw, Wash. | LD 44+2 | 328 Roble-*1726* |
| Rustad, Hugo Clarendon<br>A.B., Stanford, 1931 | Oakland | Zoöl. 135·45+7 | Pacific Grove-pg |
| Rutherford, Findlay deP.<br>A.B., California, 1926 | Santa Barbara | Med. gr. | 2430 Fillmore, SF-sf |
| Ryan, Richard Emmet<br>A.B., Stanford, 1931 | Long Beach | Soc.S. 95·94+30 | 235 Branner |
| Rytand, David A.<br>A.B., Stanford, 1929 | San Francisco | Med. gr. | 1990 Green, SF-sf |
| Saadi, Mitchel | Los Angeles | Psych.(Ind.StudyPlan) | 312Union |
| [6]Sachse, Franz Robert<br>A.B., Stanford, 1931 | Pasadena | Law gr. | 252 Everett, P-p |
| [6]Sacks, Benjamin<br>A.B., New Mexico, 1926; A.M., McGill, 1927 | Albuquerque, N.M. | Hist. gr. | 426 Encina-*821* |
| Sadler, Alden | Pasadena | LD 44–8 | 232 Encina-*1576* |
| Safier, Benno<br>A.B., Stanford, 1931 | San Francisco | Pre-Clin.7·185+104 | 1240McAl.,SF |
| [1]Sahyun, Melville<br>A.B., American University, 1916; A.M., Stanford, 1929, Ph.D., 1931 | Santa Barbara | S.Biol. gr. | 611 Waverley, P-p |
| [1]Saiz, Clive Meadford<br>A.B., Albany, 1924 | Portland, Ore. | Engl.-P.Sp. gr. | Menlo S., MP-mp |
| Sales, Barbara Townsend | Palo Alto | LD 38+33 | 439 Lincoln, P-p |
| [6]Salt, Waldo Miller | Menlo Park | LD 47+23 | MenloPark-Box541,mp |
| von Saltza, Carl A. P. | Palo Alto | LD 45–5 | 332 Encina-*1171* |
| [6]Salzer, Herbert Carl | Los Angeles | Econ. 146+60 | 108 Branner-*2133* |
| Sammis, Frederick Minturn | Los Angeles | LD 88+6 | 242 Branner-*1553* |
| [23]Sampson, Archibald Johnson | Goleta | LD 24+3 | 432 Encina-*1176* |
| [4]Sams, Harry<br>A.B., New Mexico Normal University, 1926 | Tolleson, Ariz. | Educ. gr. | 1121 Bryant, P-p |
| Sander, Henry Rey, Jr. | Piedmont | Pol.S. 45·55+11 | 22 Encina |
| [1]Sanders, Thomas W. | Proctor, Okla. | LD 0–30 | 138 Encina-*2215* |
| Sanderson, Herbert Carlyle | Vallejo | LD 43+19 | 125 Encina-*1602* |
| [234]Sandholdt, John Peter, Jr. | Monterey | S.Engr. 90·53–13 | 552 Alvarado |
| Sandoe, James Sayre | Palo Alto | LD 46+34 | 1420 Hamilton, P-p |
| [4]Sands, Lester Bruton<br>A.B., Stanford, 1929 | Palo Alto | Educ. gr. | 12 Perry, P-*1793* |
| Sapero, James J.<br>A.B., Stanford, 1928 | San Francisco | Med. gr. | 2401 Sacramento, SF-sf |
| Sapiro, Nathan Avrom<br>A.B., Stanford, 1928 | Stockton | Med. gr. | 2275 Jackson, SF-sf |
| Sarau, Christian Anton<br>A.B., Stanford, 1930 | Riverside | Law gr. | 504 Encina-*1285* |
| [1]Sargent, Arthur McClellan | Los Gatos | Soc.S.-Jn.100·53–18 | T.D.Chi-*1828* |
| [23]Saroyan, Cyril M. | Fresno | Soc.S.90·30+15 | 213 Emrsn, P-*1020* |
| Sauer, William Nicholas | St. Louis, Mo. | Soc.S. 94·52+16 | 921 Scott, P-p |
| Saufley, William Evans | Hollywood | LD 91+104 | Phi Delta Theta |
| Saunders, Edwin Bertram | San Francisco | LD 47–5 | 206 Encina-*2488* |
| [3]Saunders, Russell Lyall | San Francisco | LD 38–12 | 635 Gerona |
| [2]Sauter, John Baldi | San Francisco | LD 147+87 | Phi Sigma Kappa-538 |
| Savage, Edward Labadie | Reno, Nev. | Pol.S. 132+42 | Alpha Delta Phi-*J* |
| Savage, Meredyth<br>A.B., Stanford, 1930 | San Bernardino | Engl.-P.Sp. gr. | Pi Beta Phi-*1918* |
| Savage, Robert Harry | Rivera | LD 46–1 | 23 Encina-*1864* |
| Savinske, Robert Leo | Oshkosh, Wis. | LD 45+14 | 44 Encina-*1547* |
| Sawyer, Norman Davies | Chevy Chase,Md. | Pol.S. 146+170 | 208 Branner-*661* |
| Saxe, Harry Asa | San Francisco | LD 48+19 | 223 Encina-*2427* |
| Saxe, Robert Alan | San Francisco | LD 57+46 | 226 Encina |

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| [234]Say, Harry Leslie<br>A.B., Stanford, 1919 | Palo Alto | Law gr. | 2361 Bryant, P-p |
| [4]Scales, Leon Webb<br>A.B., Centenary College of Louisiana, 1928 | Shreveport, La. | Law gr. | 562 Lasuen |
| Scatena, James Almer | Yerington, Nev. | S.Engr. 125+108 | Al. Sig. Phi-*1357* |
| Schaefer, George Everett | Berkeley | Econ. 134–7 | 56 Barron, P-p |
| Schaefer, Peter Charles, Jr.<br>A.B., Stanford, 1931 | Denver, Colo. | Econ.44·137+17 | 443Kipling,P-*2336* |
| [4]Schatz, Betty Lee<br>A.B., Fresno State College, 1926 | Fresno | Educ. gr. | 1155 Lincoln, P-p |
| [3]Schauf, Robert William | San Francisco | Soc.S.-Jn.90·16+10 | SigmaNu-*1125* |
| Schick, Joseph Abraham | San Francisco | Chem. 184+132 | 611 Bryant, P-*1088* |
| Schickler, Eugene | San Francisco | S.Engr. 137+150 | 135 Branner-*1288* |
| Schink, William August | Victoria, B.C. | LD 90+98 | 303 Sequoia-*1135* |
| Schlegel, H. Kirby | Los Angeles | S.Engr. 132+38 | Al. Tau Om.-*1384* |
| Schmid, Clarence Lincoln<br>A.B., Stanford, 1929, M.B.A., 1931 | Palo Alto | S.Bus. gr. | 235 Emerson, P-p |
| Schmidt, David Gordon<br>A.B., Stanford, 1928 | Fresno | Med. gr. | 2406 Clay, SF-sf |
| Schmidt, George Reeves | Los Angeles | LD 47+45 | 362 Encina-*514* |
| Schnetka, William F. | Los Angeles | S.Engr. 90·36–13 | 419 Encina-*1164* |
| [4]Schock, Pearl | Stanford Univ. | Ed.-G.A.135·34+17 | 101 Roble-*2276* |
| Schoenfeld, Earl Harold | San Francisco | S.Engr. 90·48+78 | 105 Sequoia |
| [4]Schoenfeld, Willard B. | San Mateo | Econ. 90· | 521 Lasuen |
| [12]Schofield, Mary Lusia<br>A.B., Stanford, 1929, A.M., 1930 | Palo Alto | Educ. gr. | 751 Channing, P-p |
| Scholtz, Julius Robin<br>A.B., Stanford, 1930 | Los Angeles | Med. gr. | 2295 California, SF-sf |
| [4]Scholtz, Mark | Los Angeles | Pol.S. 121· | 112 Toyon-*2551* |
| Schottstaedt, Edwin Richard | Fresno | LD 45·48+13 | 420 Encina-*2228* |
| Schuck, Lillian | Palo Alto | Psych. 167+285 | 333 Portola, P-p |
| Schuck, Victoria<br>A.B., Stanford, 1930, A.M., 1931 | Palo Alto | Pol.S. gr. | 333 Portola, P-p |
| Schulte, Antoinette Lacoste<br>A.B., Stanford, 1931 | San Francisco | Zoöl. gr. | Alpha Omicron Pi-*1367* |
| Schulte, Thomas Lacoste<br>A.B., Stanford, 1931 | San Francisco | Zoöl. gr. | Delta Upsilon |
| [4]Schumacher, Marion R.<br>B.S., Columbia, 1928 | Baldwin Park | S.Biol. gr. | Pacific Grove-pg |
| [12]Schwab, Otto Henry | Patterson | S.Engr. ‡ 26–17 | 430 Encina-*997* |
| Schwafel, Jacob T.<br>A.B., Stanford, 1930 | San Luis Obispo | S.Bus. gr. | 781 Addison, P-p |
| [4]Schwafel, John Victor | San Luis Obispo | LD ‡ | 138 Toyon-*2028* |
| Schwartz, Daniel M. | San Francisco | LD 11·80+64 | 228 Sequoia-*2822* |
| Schwartz, George William | Portland, Ore. | Econ. 94·45+34 | Al. Sig. Phi-*1357* |
| Schwartz, Irving<br>A.B., Stanford, 1931 | San Francisco | Pre-Clin. 207+100 | 113 Toyon-*1494* |
| Schwarz, Theodor Albert<br>A.B., Stanford, 1931 | Palo Alto | Chem. 135·47+35 | 261 Hwthrn, P-p |
| [4]Schwarzkopf, Helen Dolly | Arcadia | LD 20+1 | 328 Roble |
| [12]Schwarztrauber, Ralph D.<br>A.B., Fresno State College, 1930 | Porterville | Math. gr. | 240 Chiquita, MV-*2281* |
| Schween, C. Bardin | Salinas | LD 83+48 | Kappa Sigma-*1326* |
| [6]Schwindt, Martin D.<br>A.B., Carleton, 1927 | Palo Alto | Educ. gr. | 454 Hamilton, P-p |
| Sciarini, Iolande Doris | Mountain View | LD 99+103 | 351 Roble |
| [2]Scobey, Fred Charles<br>A.B., Stanford, 1931 | Berkeley | C.E. 167·15+30 | 1063 Euclid, B-b |

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|---|---|---|---|
| Scott, Daniel Altekruse | San Martin | LD 91+21 | Theta Delta Chi-*1828* |
| [3]Scott, Elizabeth | Portland, Ore. | LD 81–20 | 331 Roble |
| Scott, Esther Thayer | Sacramento | LD 70+97 | Kappa Alpha Theta |
| [4]Scott, Helen Carter P. | Sacramento | Educ. ‡ | 80 S. 6th, SJ-sj |
| [4]Scott, Lionel Robinson<br>A.B., Nevada, 1928 | Reno, Nev. | Engl.-P.Sp. gr. | 311 Union-*1290* |
| Scott, Paul Taplin | Arcadia | Econ. 137+43 | Sigma Chi |
| Scott, Robert Weller<br>A.B., Stanford, 1928, LL.B., 1931 | S. San Francisco | Law gr. | 317 Union-*1152* |
| Scott, William Craven | Twin Falls, Idaho | LD 50+30 | 204 Encina-*2014* |
| Scott, William P., Jr.<br>A.B., Stanford, 1931 | San Francisco | S.Engr. 180+44 | Al. Sig. Phi-*1357* |
| [3]Scribner, Frederick Francis | Los Angeles | LD 58+62 | Zeta Psi-*B* |
| Scripps, Fredrick Tudor<br>A.B., Stanford, 1931 | San Diego | Pol.S. 185+78 | Zeta Psi-*B* |
| [12]Seagoe, May Violet<br>Ed.B., California at Los Angeles, 1929; A.M., Stanford, 1931 | Alhambra | Educ. gr. | 866 2d, P-*2262* |
| Seagrave, Phoebe | Palo Alto | LD 51+39 | 360 Forest, P-*1573* |
| Seaman, John Allen | Escalon | Econ. 125–15 | 301 Branner-*2381* |
| Seapy, Lewis Fredrick<br>A.B., Pomona, 1930 | Ontario | Med. gr. | 421 Kipling, P-p |
| Searls, Frederick Taylor | San Francisco | LD 96+102 | 659 Salvatierra-*1156* |
| [4]Sears, John Alden | Seattle, Wash. | S.Engr. 10·81–10 | 118 Toyon-*1383* |
| [4]Sears, Philip Cheney | Seattle, Wash. | Econ. 102· | 118 Toyon |
| [23]Seaver, Charles Henry | Los Angeles | LD 30+6 | 424 Encina-*2036* |
| [23]Seidenfeld, Morton Alfred<br>B.S., Washington, 1927 | San Francisco | Med. gr. | Un. League Club, SF-sf |
| [234]Seitz, Frederick | San Francisco | Math. 17·137+165 | 15 Toyon |
| [4]Sellick, Charles W.<br>A.B., Chico State Teachers College, 1927 | S. San Francisco | Educ. gr. | 550 Lasuen |
| Senders, Alison Frances | Albany, Ore. | LD 90+41 | 310 Roble-*2362* |
| [4]Seppi, Rudolph Henry | Buckley, Wash. | Educ. 135·34+19 | 804 Bryant, P-p |
| [12]Sessions, Royral Fred<br>A.B., Southwestern, 1921; M.S., Vanderbilt, 1922; Ph.D., Stanford, 1931 | San Antonio, Texas | Chem. gr. | 502 Encina-*957* |
| [12]Seth, James | Santa Fe, N.M. | LD 55+23 | 204 Toyon-*1885* |
| Severance, Harold L. | Great Falls, Mont. | Econ. 139+100 | 205 Branner-*1563* |
| [4]Seymour, Letitia Newman<br>A.B., Chico State Teachers College, 1930 | Sacramento | Educ. gr. | 318 Lytton, P-p |
| Shallenberger, William Hogus | Latrobe, Pa. | LD 50+18 | 128 Encina-*1527* |
| Shanklin, John Harold | Canyon, Texas | S.Engr.135·41–1 | 465 Ruthven, P-p |
| Shannon, Rollin Robb<br>A.B., Indiana, 1926 | Williamsport, Ind. | Med. gr. | 2201 California, SF-sf |
| Shapiro, Herbert Lawrence | San Francisco | LD 20·52+26 | 447 Encina |
| [23]Shapovalov, Leo<br>A.B., Stanford, 1930 | Riverside | Zoöl. gr. | 640 Tennyson, P-p |
| Sharp, James Meikle<br>A.B., Stanford, 1931 | Santa Paula | S.Engr. 5·187+179 | 213 Toyon-*2145* |
| [4]Sharp, Luther<br>A.B., Southern California, 1917 | Stockton | Econ. gr. | 136 Harriet, P-p |
| [23]Sharp, Sidney Arthur | Crannell | LD 21–19 | 141 Encina-*2321* |
| Sharp, Stanley Louis<br>A.B., Utah, 1929; A.M., Stanford, 1931 | Palo Alto | Germ. gr. | 135 Pine, P-p |
| Shattuck, Keith Crittenden<br>A.B., Stanford, 1931 | Palo Alto | Sc.S.-Jn.45·135+59 | 1001 Ramona,p |
| [23]Shaw, Edward Stone<br>A.B., Stanford, 1929, A.M., 1930 | Palo Alto | Econ. gr. | 33 Encina Ave., P-p |
| [4]Shaw, John Abisha, Jr.<br>A.B., Washington and Jefferson, 1919 | Spokane, Wash. | Educ. gr. | 33 Encina, P-Box 8, p |

[5]Shaw, Laurence L. Klamath Falls, Ore. Econ.104·61+53 865Hmltn,P-*1381*
Shaw, Lucien West Glendale Law gr. 735 Dolores-*872*
A.B., Occidental, 1930
[5]Shaw, William Lawrence Sacramento Law gr. 205 Union-*1224*
A.B., Stanford, 1930
[4]Shea, Francis X. Haddam, Kans. Educ. gr. 557 Lasuen
B.S., Kansas, 1928
Sheahan, James Aloysius Seattle, Wash. LD 43–1 123 Encina-*1421*
Sheedy, Burnham New York, N.Y. LD 92+73 *237* Branner-*1801*
Shefoff, Henry Alexis Oakland Phyl. gr. 421 Encina-*2607*
A.B., California, 1930
[12]Sheldon, Dean Howell Los Angeles Geol. 107·77+80 528 Encina-*672*
A.B., Stanford, 1931
[4]Sheldon, Donald R. Holbrook, Ariz. Educ. gr. 475 Harvard, P-p
B.S., Kansas State Teachers College, 1927
[23]Shephard, Myrne San Jose Engl. gr. Chi Omega
A.B., Mills, 1930
[5]Sherman, Marsdon Alexander Ross Law gr. 306 Union-*2602*
A.B., Stanford, 1931
Shibley, George Edward Long Beach Pol.S. 180+143 *239* Branner-*950*
A.B., Stanford, 1931
Shibley, Wadieh Samuel Long Beach Pol.S. 184+99 *239* Branner-*950*
A.B., Stanford, 1931
Shidler, Frederic Porter Torrance LD 62+44 405 Encina-*2706*
[234]Shidler, John A. Torrance Econ. 91–2 Sig. Al. Epsilon-*1305*
Shigeta, Mitsuharu Japan Soc.S.-Soc. gr. Japanese Club-*806*
A.B., College of the Pacific, 1927
Shih, Chao Kuei Kiangsu, China Educ. gr. 942 Ramona, P-p
A.B., National Central University, 1929
Shikuma, Kenji Fred Watsonville Econ. 90·101+4 Japanese Club-*598*
A.B., Stanford, 1931
[1]Shinbo, Hachiro Seattle, Wash. Bact. gr. Japanese Club-*598*
A.B., Stanford, 1929
[4]Shipkey, Ted Edwin Fullerton Phys.Ed. gr. Kappa Sigma
A.B., Stanford, 1927
Shippey, Hartwell Hugo Los Angeles LD 67–22 138 Branner-*618*
Shippey, Mervyn Gwendyke Visalia Hist. 90·186+17 *221* Toyon-*1845*
A.B., Stanford, 1931
Shires, Henry Millis Alameda LD 44+85 318 Encina-*2184*
Shirk, James A. Garfield Pittsburgh,Kans. Math. gr. 1319 Bryant, P-p
A.B., McPherson, 1901, A.M., 1902; M.S., Kansas, 1905
[5]Shively, Rosetta Dariel Bakersfield Zoöl. gr. 318 Roble-*1814*
A.B., Stanford, 1931
Shoemaker, Victor Leroy Santa Monica S.Engr. 102·93+0 430 Forest, P-p
A.B., Stanford, 1931
[5]Shook, Ila Lee Corning Math.47·103+56 Del.Del.Del.-*2492*
[1]Shortall, Jane Elizabeth San Francisco LD 44+35 *232* Roble-*3036*
Shorts, Bruce Seattle, Wash. Econ. 182+92 Delta Kappa Epsilon
A.B., Stanford, 1931
Shorts, Calhoun Seattle, Wash. LD 90+124 Delta Kappa Epsilon
[2]Shott, John Glotfelty Palo Alto Econ. gr. 611 Bryant, P-p
A.B., Iowa, 1927; A.M., Stanford, 1930
Shove, Maynor Benedict Pasadena Econ. 181+113 Phi Delta Theta
A.B., Stanford, 1931
[5]Shull, Claude Archer Palo Alto Educ. gr. PA-Rt. 1, Box 608, p
A.B., Immanuel Missionary College, 1916; A.M., Stanford, 1931
Shuman, Marian Los Angeles Engl. 44·137+190 303 Roble-*40*
A.B., Stanford, 1931
[12]Shuster, Melvin B. Eureka S.Engr. 90·58–3 Palo Alto-p

Shwayder, Montimore C. Denver, Colo. LD 53+18 447 Encina
[1]Sibley, Robert Berkeley E.E. gr. 2471 Cedar, Berkeley-b
B.S., California, 1903, E.E., 1922
[4]Siebrecht, Adolph Earl San Francisco LD 13+0 115 Toyon-*2031*
Siegfried, Joseph Henry Kennewick, Wn. S.Engr. 130+68 Phi Sig. Kap.-*538*
[1]Siegfried, Nanelia Palo Alto Engl. gr. 310 Waverley, P-p
A.B., Stanford, 1930
Siegfried, Victor Palo Alto E.E. gr. 310 Waverley, P-p
A.B., Stanford, 1930
Siegfried, Victoria Palo Alto Engl. 181+154 310 Waverley, P-p
A.B., Stanford, 1931
[4]Silbaugh, Della Masten Palo Alto Educ. ‡ 14+2 1060 High, P-p
Silliman, James Emery Greenriver, Utah LD 72·49+67 1047 Ramona, P
Silliman, Julian Winthrop Palo Alto C.E. gr. 1160 Bryant, P-p
A.B., Stanford, 1930
de Silva, Paul Lewis San Francisco LD 48·72+19 202 Sequoia
Silva, William Half Moon Bay E.E. gr. 109 Sequoia
A.B., Stanford, 1929, Engineer, 1931
Silver, Rafael von Heim Oakland Cl.Lit. 24·90+130 847 Bryant, P
[2]Silver, Wilma Clarke Tustin Engl.-P.Sp. 107·8+7 467 Seale, P-p
Silverman, George Joseph Lawrence, Mass. LD 72+59 451 Pope, P
[5]Silverman, Milton Morris Piedmont Chem. gr. 1832 Cowper, P-p
A.B., Stanford, 1930
[234]Simatovich, Nicholas J. San Francisco LD 67–9 312 Toyon
[2]Simkins, William Manhattan Beach Econ. 182+138 235 Embredro, P-*B*
A.B., Stanford, 1931
Simmonds, Ray Julius Oakland LD 45·60+35 122 Encina-*1273*
[5]Simon, Louis Donald San Francisco S.Biol. 90·65+22 943 Bryant, P-p
Simon, Ralph Allen San Francisco S.Engr. 139+88 217 Branner
Simons, Arthur Evert Vallejo LD 96+111 Phi Kappa Psi
[4]Simonson, DeCalvus William Los Angeles Engl. gr. 347 Alma, P-p
A.B., Harvard, 1921, A.M., 1922
Simpson, Charles Jerry Los Angeles Geol. 107+9 Phi Kappa Sigma
Simpson, Robert Lee Fresno Med. gr. 2228 Clay, SF-sf
A.B., Stanford, 1930
[12]Sims, Richard Maury, Jr. Berkeley Econ. 186+232 Zeta Psi-*B*
A.B., Stanford, 1931
Sims, Robert Lee Berkeley LD 44+31 231 Encina-*923*
[18]Singelyn, Elmer Charles Inglewood Econ. 88·77+24 239 Branner-*1235*
Singer, Sidney Charles, Jr. Glendale S.Engr.3·149+138 227 Branner-*2187*
[124]Sisson, Charles A. Lawrence, Kans. Engl. gr. 505 Oberlin, P-p
A.B., Kansas, 1923
[234]Sistrom, Joseph William Hollywood LD 32+27 112 Encina-*677*
Skanchy, W. Leland Logan, Utah Law gr. 356 Addison, P-p
B.S., Utah Agricultural, 1928
[5]Skelton, Harris R. Red Bluff Econ. gr. 327 Emerson, P-p
A.B., Stanford, 1929, A.M., 1931
Skillern, John Philip Boise, Idaho Soc.S.-Jn.127+18 Casa Rl Apts., P-p
Skillern, William Farrar Boise, Idaho LD 45+2 360 Forest, P-p
Skilling, Hugh Hildreth San Diego E.E. gr. 331 Union-*1090*
A.B., Stanford, 1926, Engineer, 1927, Ph.D., 1931; M.S., Massachusetts Institute of Technology, 1930
[5]Skinner, Carl Harrison St. Paul, Neb. Educ. gr. 183 Everett, P-p
A.B., Kansas State Teachers College, 1914; A.M., Indiana, 1923
Skinner, Charles Francis Everett, Wash. LD 47+10 349 Encina-*1992*
Skinner, John William Oakland Hist. 138+233 Phi Gamma Delta
[12]Skipwith, Marvin Los Angeles Phil. 172–7 243 Toyon-*2486*

Skog, John Bernhard — Sacramento — S.Engr.94·40+16 206 Sequoia-*2214*
Skow, Royce Kenneth — San Jose — Phyl. gr. 374 Fruitdale, SJ
A.B., Stanford, 1931
Slater, V. Giddings — Culver City — Med. gr. 2480 Washington, SF-sf
A.B., Stanford, 1927
[5]Slawson, Harrison S. — Sacramento — Econ. 18·149+136 Sigma Chi
Slayton, Martha Louise — Wichita, Kans. — LD 43+29 358 Roble-*1532*
Sleeper, George Edward — Berkeley — S.Engr. 106·110–5 Theta Xi
Slocum, Donald Barclay — Portland, Ore. — S.Biol. 9·143+66 Chi Psi-*1648*
[12]Slocumb, Rigdon Hall — San Francisco — Econ. 180+28 262 Rinconada, P-p
A.B., Stanford, 1931
Slonaker, Marion Elizabeth — Palo Alto — LD 45+20 252 Roble-*1404*
[5]Sloss, Henry Esberg — San Francisco — S.Engr. 185+4 126 Branner-*2614*
Sloss, Joseph, Jr. — San Francisco — S.Engr. 193+36 126 Branner-*2614*
A.B., Stanford, 1931
Sloss, Laurence L. — San Francisco — LD 48+21 323 Encina-*2614*
[5]Small, Alice Verda — Boston, Mass. — LD 47+84 115 Alma, P-p
[12]Small, F. McCauley — Palo Alto — Soc.S.-Jn.183+200 346Mdrño,P-p
A.B., Stanford, 1931
[5]Smart, Kennard Rutledge — Palo Alto — Econ. 92·45–10 617 Homer, P-p
Smith, Adele Katherine — Washington,D.C. — Soc.S. 9·171+145 Del. Gam.-*1366*
A.B., Stanford, 1931
[12]Smith, Albert — San Mateo — Econ. 96·15+0 Sigma Nu
Smith, Charles Blakslee — Los Angeles — Law gr. 436 Waverley, P-*1384*
A.B., Stanford, 1930
Smith, Charles Gilbert — N. Hollywood — S.Engr.107·41+14 319Sequoia-*2201*
[12]Smith, Charles Kirtland — Palo Alto — Econ. 90·69–44 1335 Cowper, P-p
[12]Smith, Clarence Richard — Comptche — Phys. 120–9 363 Melville, P-*1017*
Smith, Clyde Kempton — Burlingame — LD 95+62 11 Toyon
Smith, Donald Franklin — Los Angeles — Law gr. 436 Waverley, P-*1384*
A.B., Stanford, 1930
Smith, Edward Anderson — Burlingame — Educ. gr. 216 Myrtle, B-*2132*
A.B., Stanford, 1928
Smith, Edward Wright — Santa Barbara — S.Bus. gr. 206 Union-*1763*
A.B., Stanford, 1929, M.B.A., 1931
Smith, Edwin Russell — Los Angeles — Pol.S. 9·109–5 Al. Tau Ome.-*1384*
Smith, Floyd Russel — Franklin, Pa. — Bact. gr. 327 Lytton, P-p
A.B., Bucknell, 1929; A.M., Stanford, 1930
Smith, Francis Nicol — Burlingame — LD 60·43+31 225 Encina-*85*
Smith, Frank Hilton — San Francisco — Med. gr. 3467 Jackson, SF-sf
A.B., Stanford, 1929
Smith, G. Abbott — Orange — LD 45+27 852 Homer, P-p
[1]Smith, Gale Morland — Miami, Fla. — LD 16+9 200 Portola, P-p
[1]Smith, George James — Menlo Park — Geol. gr. 430 Cambridge, MP-mp
A.B., Stanford, 1924
[1]Smith, Gilbert Forrest — Santa Cruz — LD 64·38–22 Los Altos-la
Smith,GilbertWheeler — Minneapolis,Minn. — Chem. gr. 844 Addison, P-*2205*
A.B., Stanford, 1930, A.M., 1931
[12]Smith, Hamilton Allen — Palo Alto — Geol. gr. 219 Seale, P-p
A.B., Stanford, 1931
Smith, Harry Bell — San Francisco — Econ. 49·132–2 Zeta Psi-*B*
Smith, Jack Carpenter — Tulsa, Okla. — S.Bus. gr. 781 Addison, P-p
A.B., Stanford, 1930
Smith, Jerome Frost — Palo Alto — Med. gr. 2300 Webster, SF-sf
A.B., Stanford, 1930
[23]Smith, Kernick — Reno, Nev. — Geol. 110+7 Kappa Sigma-*1326*
Smith, Lonon Quinn — Ducor — S.Engr. 90·94+103 233 Union-*2188*
A.B., Stanford, 1931

[12]Smith, Lurton Robert East Helena,Mont. Phys. 90-57–20 Theta Chi
Smith, Madison Oliver Pueblo, Colo. LD 48–8 408 Encina-*687*
Smith, Marienne Elizabeth Mill Valley Engl.-P.Sp.90-98+79 D.Gam.-*1366*
A.B., Stanford, 1931
[4]Smith,MauriceLemuel Mt.Pleasant,Mich. Educ. gr. Cardinal Hotel, P-p
B.S., Columbia, 1919, A.M., 1925
[1]Smith, Meredith Kopp Tacoma, Wash. Law gr. 302 Union
A.B., Stanford, 1930
[4]Smith, Myron English Los Angeles Law gr. 239 Toyon-*144*
A.B., California at Los Angeles, 1929
Smith, Philip Patterson Palo Alto Psych. 147+2 707 Bryant, P-*2346*
[12]Smith, Robert Elliott Azusa Chem. gr. 203 Union-*32*
A.B., Stanford, 1930
Smith, Robert Gumbert Coronado LD 71+10 847 Bryant, P-p
Smith, Robert Herman Las Vegas, N.M. LD 11-48+23 336 Encina-*862*
Smith, Robert Lee, Jr. Pomona S.Biol. 137+160 Carmel-c
Smith, Rogers Phillip Seattle, Wash. Econ. 180+47 DeltaKappaEpsilon
A.B., Stanford, 1931
[1]Smith, Rollin Coleman, Jr. Los Angeles LD 326 Encina-*973*
[1]Smith, Sanderson Stanford Univ. Engl. 115–23 16 Branner-*678*
Smith, Seymour Purdon Pacific Grove Med. gr. 2180 Washington, SF-sf
A.B., Stanford, 1927
[12]Smith, Vera Florence Portland, Ore. Bact. gr. 174 Tasso, P-p
A.B., Reed, 1928
[2]Smith, Ward Conwell St. Louis, Mo. Geol. gr. 427 Encina-*1281*
A.B., Stanford, 1931
Smith, William Noble Platteville, Wis. S.Bus.gr. 469Harvard,P-(Sta.A)p
A.B., Wisconsin, 1930
[14]Snedden, Loring Bertram Maricopa Geol. gr. 804 Bryant, P-p
A.B., Stanford, 1930, A.M., 1931
[4]Snell, Alice Esther Hollister Span. gr. 221 Roble
A.B., San Jose State Teachers College, 1930
[34]Snell, Elizabeth Burritt Palo Alto Educ. gr. 1333 Tasso, P-p
A.B., Stanford, 1908
[4]Snell, James Lloyd Hollister Educ. gr. 531 Cowper, P-p
A.B., San Jose State Teachers College, 1929
[234]Snider, Earle Kirn Fresno Educ. gr. Theta Chi-*1383*
A.B., Stanford, 1930
[14]Snively, Dorothea Denver, Colo. LD 15+16 341 Roble-*2056*
[4]Snodgrass, Milton Dean GlennsFerry,Ida. Educ. gr. 451Hanover,P-(Sta.A)p
A.B., Washington State, 1924
Snoke, Albert Waldo Palo Alto Med. gr. 2319 Sacramento, SF-sf
B.S., Washington, 1928
Snyder, Alfred Rex Neoga, Ill. LD 44+31 202 Encina-*1705*
[234]Snyder, Cedric O. Stanford Univ. LD‡22+10 542 Alvarado
[5]Snyder, Edward Eugene, Jr. Palo Alto Chem. gr. 853 Forest, P-p
A.B., Stanford, 1930, A.M., 1931
Snyder, Emma Jane N. Hollywood Pol.S. 4-138+151 218 Roble-*2434*
[12]Snyder,Evelyn Hamilton StanfordUniv. Educ. gr. 542 Alvarado
A.B., Stanford, 1930
Snyder, Horatio Miles Haverford, Pa. LD 75–9 215 Cowper, P-*845*
[5]Snyder, John Calvert Jackson Law gr. 8 Union-*601*
A.B., Stanford, 1929
[5]Snyder, John Crayton Pasadena Phys.S. gr. Alpha Delta Phi-*J*
A.B., Stanford, 1931
Snyder, Rixford Kinney San Jose Hist. gr. 1045Bird, SJ-Box 478, sj
A.B., Stanford, 1930
Soares, Edward Joseph San Francisco M.E. gr. 204 Sequoia-*967*
A.B., Stanford, 1930

Sobey, Katharine Douglas — Paso Robles — Hist. 21·159+0 — 363 Roble-*2827*
A.B., Stanford, 1931

[1]Soderberg, Kermit Joseph — Los Angeles — LD 77–14 — Sigma Chi-*628*

[5]Sokol, Anthony Eugene — Vienna, Austria — Germ. gr. — 815 Cowper, P-p
B.S., Mississippi State Teachers College, 1927; A.M., Stanford, 1930

Solomon, John William — Los Angeles — Law gr. — Sig. Alpha Epsilon-*1305*
A.B., Stanford, 1930

[1]Somerville, Marshall — Los Angeles — Soc.S.-Jn. 138+10 — 314 Union-*2481*

Sorensen, Lester Garfield — Hilo, Hawaii — Min. gr. — 218 Toyon-*713*
A.B., Stanford, 1931

[4]deSoto, Alexander P. — Klamath Falls, Ore. — Engl. gr. — 521 Lasuen
A.B., Washington, 1928

[4]Southern, Clarence Edward — Mesa, Ariz. — Educ. gr. — 820 Cowper, P-p
A.B., Evansville, 1927

[23]Sox, Harold C. — Palo Alto — Med. gr. — 2447 Sacramento, SF-sf
A.B., Oregon, 1927

Sox, Mary Griffiths — Palo Alto — Ed.-G.A. 67·120+83 — 846 Midlfd., P
A.B., Stanford, 1931

Spaght, Monroe Edward — Eureka — Chem. gr. — 407 Sequoia-*1935*
A.B., Stanford, 1929, A.M., 1931

[13]Spalding, Howard F. — Medford, Ore. — Ec.-Ac.22·172+304 — Th.D.Chi-*1828*
A.B., Stanford, 1931

Spalding, Rufus Paine, Jr. — San Marino — LD 59–15 — Delta Tau Delta-*1363*

[4]Sparks, Lestle Jesse — Salem, Ore. — Phys. Ed. gr. — 429 Ruthven, P-p
A.B., Willamette, 1919

Spaulding, Catherine Mary — Los Angeles — Pol.S. 141+123 — 347 Roble-*2454*

[4]Spearman, Ethel — Sanger — Math. gr. — 718 Bryant, P-p
A.B., Drury, 1921

Specker, Lewis — Philadelphia, Pa. — Med. gr. — 2554 Pine, SF-sf
A.B., Pennsylvania, 1926

Speegle, Paul Lanz — Palo Alto — Law gr. — 415 Encina-*2523*
A.B., Stanford, 1930

Speik, Madeleine Lawton — S. Pasadena — LD 93+167 — Kappa Alpha Theta

Spellacy, Edmund Frank — Los Angeles — Pol.S. gr. — Theta Xi
A.B., Stanford, 1927, A.M., 1931

Spencer, Allan Thomas — Woodland — Econ. 126+35 — Zeta Psi-*B*

[5]Spencer, Jean Stephen — Houston, Texas — Geol. 79·81+2 — 427 Webster, P-*697*

Spencer, William Taylor — Woodland — LD 45+2 — 310 Encina-*513*

Spiekerman, Ernest T. — The Dalles, Ore. — LD 91+75 — 226 Toyon-*2703*

Spinks, Charles Nelson — Los Altos — Hist. gr. — Los Altos-Box 237, la
A.B., Stanford, 1929, A.M., 1930

[3]Spire, James Samuel — Corona — Span. gr. — 1116 Bryant, P-p
A.B., Pomona, 1930

Spoehr, Alexander — New York, N.Y. — LD 48+24 — 222 Encina-*992*

[1]Spriggs, James Llewellyn — Williams — Educ. gr. — 312 Union
B.S., Oregon Agricultural, 1920; A.M., California, 1929

Spring, Scherzer Rafael — Mill Valley — LD 51+49 — 136 Encina-*1941*

Springer, Frank David, Jr. — Los Angeles — LD 45+5 — 352 Encina-*1692*

Springer, James Milford — Para, Brazil — Law gr. — Sigma Chi
A.B., Stanford, 1930

[4]Stack, Mary Mildred — Prescott, Ariz. — LD ‡ — 244 Roble

Stadler, Louis Stewart — Helena, Mont. — Econ. 185+54 — 310 Toyon-*1855*
A.B., Stanford, 1931

[1]Stahle, Therice Henry — Bountiful, Utah — Law gr. — 349 Hamilton, P-p
B.S., Utah, 1927; LL.B., Stanford, 1931

[1]Stanford, Donald Elwin — Stockton — LD 42–8 — 131 Toyon-*618*

[4]Stanford, Leland Ghent — San Diego — Law gr. — 115 Alma, P
A.B., Stanford, 1924, A.M., 1926

[24]Stanford, Lucina O. Pacific Grove S.Biol. gr. Pacific Grove-pg
A.B., Fresno State College, 1928; A.M., Stanford, 1931
[134]Stanton, Cathrine San Francisco LD 85+96 307 Roble-*2244*
[5]Starbird, George Albert King City Engl. 162+26 Chi Psi-*1648*
Starbuck, A. Franklin Whittier M.E. gr. 832 Kipling, P-*606*
A.B., Whittier, 1928
Stark, William Henry Riverside LD 44–4 357 Encina-*737*
[4]Starkweather, Robert G. San Francisco LD 238 Toyon-*957*
Starr, Emma Bozeman, Mont. Ed.-G.A.135·45+33 533Lsun.-*1515*
A.B., Stanford, 1931
[12]Starr, Vernon Comfort Pasadena Phyl. 90·11–2 334 Waverley, P-p
Statter, Brockwell C. Portland, Ore. LD 45+31 410 Encina-*2018*
Steacy, Hugh Wellington Lodi LD 89+80 Phi Sigma Kappa-*538*
[5]Stearns, Joseph Hanan New York, N.Y. Econ. 90·54+29 760 Univ., P-*115*
[12]Stearns, Muriel Imogene Cottonwood Hist. gr. Chi Omega
A.B., Stanford, 1930
Stebbins, Amelia Adams Palo Alto LD 43–1 491 Santa Rita, P-p
Steedman, Gordon Arkley Palo Alto LD 45+65 1250 Lincoln, P-p
[26]Steele, Warren Nelson, Jr. Modesto Pre-Med. 117+50 125 Branner-*671*
[5]Stein, B. Alden Alhambra S.Engr. 148+53 132 Toyon-*1212*
[12]Stein, Charles San Francisco LD 74+6 120 Toyon-*2541*
Stein, William C. Los Angeles Law gr. 322 Union-*1015*
A.B., Stanford, 1928, LL.B., 1931
Steiner, Arnold Byron San Francisco Chem. 121+185 202 Toyon-*2208*
Steinhart, Carl Stockton Chem. 26·150+30 260 Toyon-*1028*
Steinhart, Robert Jacob Stockton LD 42–13 307 Encina-*1028*
[12]Stenton, William Vere, Jr. Spokane,Wn. Econ. 94·25–30 Phi Gamma Delta
Stephens, Jefferson Chandler Los Angeles Econ. 164+1 344 Serra
[4]Stephens, Leroy Hamilton San Francisco Educ. gr. Los Altos
A.B., Stanford, 1902, A.M., 1903
Stephens, Trow Hendrick Hollywood Soc.S. 187+132 Alpha Delta Phi-*J*
A.B., Stanford, 1931
[5]Stephenson, Robert C. Centralia, Wash. Econ. 70·124+3 555 Encina-*2737*
[234]Sterling, John E. W. Palo Alto Hist. gr. 519 Addison, P-p
A.B., Toronto, 1927; A.M., Alberta, 1930
Stern, Charles, Jr. Rochester, N.Y. Law gr. Portola Rd.-*1468*
A.B., Stanford, 1930
[1]Stern, Gwenyth Jean Los Angeles LD 48–26 Roble
Sterry, Lewis Trask Los Angeles Pol.S.118+39 DeltaTauDelta-*1363*
Stevens, S. Smith Salt Lake City, Utah Psych. gr. 228 Kipling, P-p
A.B., Stanford, 1931
[4]Stevenson, Gordon Keen Ocean Beach Educ. gr. 521 Salvatierra
A.B., Pomona, 1928
[13]Stevenson, Richard Gray Piedmont Econ. 181+66 Delta Kappa Epsilon
A.B., Stanford, 1931
Stevick, Donald Justin Atherton Hist. 5·169+36 KappaSigma-*1326*
Stewart, Donald Judson Redlands S.Bus. gr. 435 Hamilton, P-p
A.B., Redlands, 1927; M.B.A., Stanford, 1931
Stewart, Edgar Burkehart, Jr. Piedmont Law gr. Delta Tau Delta-*1363*
A.B., Stanford, 1930
Stewart, Frank Torrance S.Engr. 104+21 Al. Tau Om.-*1384*
[34]Stewart, I. Lucile Burlingame Educ. gr. 1356 Vancouver, B-b
A.B., San Francisco State Teachers College, 1929
[1]Stewart, John Mullen La Jolla Engl. 87·16+14 Kingscote
[4]Stewart, Mary Louise Los Angeles LD 109 Roble
[5]Stine, Oliver Charles Saratoga Econ. 122–16 Alpha Delta Phi-*J*

[1]Stocklmeier, Adele Irmler — Cupertino — Ed.-G.A. gr. Cupertino-Box 284, c
A.B., Stanford, 1918
[5]Stockton, Philip Brent — La Jolla — Econ. 165+62 1001Ramona.P-*1797*
Stoddard, Kenneth B. — Stanford Univ. — Phys. gr. 315 Union
A.B., California at Los Angeles, 1928; A.M., Stanford, 1930
Stoddard, Robert LaVonn — LaGrande, Ore. — LD 47–5 120 Encina-*1605*
Stone, Frederick Eaton — Porterville — Law gr. 535 Encina
A.B., Stanford, 1930
[134]Stone, John William — Los Angeles — Econ. 9·121+15 300 Toyon-*1855*
[4]Stone, Mabel — Portland, Ore. — Educ. gr. Roble
B.S., Oregon Agricultural, 1928
[4]Stone, Percy Gordon — Palo Alto — Econ.-Acct.‡14+1 518 Univ., P-p
Stone, Willard John — Pasadena — LD 48+22 221 Encina-*1676*
Stoner, Eliot Filger — Sacramento — S.Engr. 90·45+78 314 Sequoia-*2204*
[6]Storey, Herbert C. — Suisun — Geol. 135+6 1744 Cowper, P-p
Storey, Parnie Hamilton — Stanford Univ. — Med. gr. 2321 Sacramento, SF-sf
A.B., Stanford, 1928
Storms, Allan Wenzel — Los Angeles — Econ. 64·72+91 Chi Psi-*1648*
Story, Donald Lee — Anderson — S.Engr. 177+38 564 Univ., P-*2668*
Stratton, John Robert — San Luis Obispo — Econ. 99·62+11 505 Cornell, P-p
[4]Straughan, Dorothy — Pendleton, Ore. — Educ. gr. 710 Yale, P-(Sta. A) p
A.B., Oregon, 1928
[4]Strayer, A. Drayton — Los Angeles — Econ.135·42–1 PA-Rt.1,Box 351, p
[4]Strickland, Arthur G. R. — Balfour, B.C. — S.Biol. gr. 1501 Stanford, P-*1768*
B.S., Gymnace Scientifique (Lausanne), 1904; Engineering Diploma, Federal Technical Institute (Zurich), 1908
Stroebe, Helen Mary — Redlands — Pre-Clin.135·51+72 256 Klog, P-p
A.B., Stanford, 1931
[1]Strong, Charles H. — Tacoma, Wash. — S.Engr. 104+34 Sig.Al.Eps.-*1305*
Strong, Kenneth Clark — San Francisco — Med. gr. 1990 Green, SF-sf
A.B., Stanford, 1927
Strong, Margaret Louise — Stanford Univ. — LD 90+79 *672* Mirada
[12]Strong, Marian — Los Angeles — Soc.S. 180+140 101 Roble-*1918*
A.B., Stanford, 1931
Strong, Winston Counter — Gresham, Ore. — Psych. 59·78+35 208 Sequoia
[4]Strouse, Carl David — Chicago, Ill. — LD 210 Toyon-*1662*
Strouse, Richard Benjamin — Chicago, Ill. — LD 45+77 303 Encina-*1662*
Strout, Miriam North — La Jolla — Pol.S. 142+77 171 Roble-*2433*
[5]Strout, Ruth Louise — Alameda — Educ. 9·169+10 KappaAlphaTheta
Stuart, Elizabeth — Alhambra — Soc.S. 182+188 Delta Gamma-*1366*
A.B., Stanford, 1931
Stuart, Keith Dossett — El Centro — S.Engr. 90·44–11 102Sequoia-*1049*
Stuart, Margaret Moore — Stanford Univ. — LD 42·40–15 Roble-*2464*
Studebaker, Leland F. — Ft. Dodge, Ia. — Med. gr. 2321 Sacramento, SF-sf
A.B., Stanford, 1930
Stump, Ernest C., Jr. — Canon City, Colo. — Pol.S. 90·42–5 Al. Sigma Phi-*1357*
Stump, George Taft — Visalia — S.Engr. 146+59 221 Toyon-*2757*
Suffel, George Shumway — Pasadena — M.E. gr. 240 Toyon-*842*
A.B., Stanford, 1931
[234]Sugarman, Harold — Santa Rosa — Pre-Med. 90·30+2 1560 Univ., P-p
[23]Sullivan, Crawford Jacob — Los Angeles — Pol.S. 107+98 125 Branner-*1332*
[1]Sullivan, John Graham — Merced — Econ. 180+35 418 Florence, P-p
A.B., Stanford, 1931
Sullivan, Mark Thomas — Auburn — Math. 90·50+11 312 Sequoia-*2213*
[4]Sullivan, Raymond Treat — Riverside — LD 119 Toyon-*508*
[12]Sullivan, TimothyR. — Newburyport,Mass. — Law gr. Stanford Firehouse-*2671*
A.B., Catholic University of America, 1927

| | | | |
|---|---|---|---|
| Sullivan, Willis Eugene | Boise, Idaho | Phil. 5·140+129 | Kappa Alpha |
| Sulzbacher, Carl Minor | Los Angeles | Econ. 171+58 | Chi Psi-*1648* |
| [6]Summers, Bert Orrell | San Jose | LD 85+36 | Sig. Alpha Epsilon-*1305* |
| Sumner, Elizabeth Sarah | Palo Alto | Ed.-G.A.45·94+85 | DeltaGam.-*1366* |
| [6]Sumner, Francis Holly | Palo Alto | Zoöl. 45·86+116 | 760 Univ., P-p |
| Sumner, Roger Wells | Pasadena | Soc.S. 137+47 | 200 Branner-*2342* |
| Sun, Yu Chi | Harbin, China | Min. gr. | Chinese Club-*1142* |
| B.S., National University of Peking, 1921 | | | |
| Surryhne, Strobel Norwood | San Mateo | LD 59+20 | 138 15th Ave., SM-sm |
| Sutherland, John Gordon | Weston, Ont. | C.E. gr. | 11 Union-*723* |
| A.B., Toronto, 1930 | | | |
| [22]Sutow, Wataru Walter | Guadalupe | LD 13+10 | Japanese Club-*598* |
| Sutphen, Joseph W., Jr. | Los Angeles | Hist. 39·141+40 | Phi Kappa Psi |
| A.B., Stanford, 1931 | | | |
| Sutro, Oscar | Piedmont | Pol.S. 137+56 | Delta Chi-*1304* |
| Sutro, Robert Cohen | Los Angeles | Econ.-Acct. gr. | 320 Union-*1894* |
| A.B., Stanford, 1931 | | | |
| [12]Sutton, Harriet Edith | South Pasadena | Ed.-G.A. gr. | Pi Beta Phi-*1918* |
| A.B., Stanford, 1930 | | | |
| Sutton, Herbert Bryan | Stanford Univ. | Econ. 180+156 | 110 Branner-*1977* |
| A.B., Stanford, 1931 | | | |
| Swan, Dorothy | Piedmont | LD 45+34 | 158 Roble-*2045* |
| [4]Swann, James Hubert | Lebanon, Tenn. | Phys.Ed. gr. | *221* Toyon-*2119* |
| B.S., Tennessee State Teachers College, 1929 | | | |
| Swarth, George Selwyn | Berkeley | LD 44+38 | 110 Encina-*2005* |
| [1]Swarthout, R. Edwards | Los Angeles | Min. gr. | Maybelle, P |
| A.B., Stanford, 1927 | | | |
| [5]Swede, Robert Guy | Conshohocken, Pa. | Engl. 117·50+49 | 583 Salvatierra |
| Swift, Coe Tanner | Madera | LD 94+42 | Pacific Grove-pg |
| [4]Switzer, A. Irwin, Jr. | Spokane, Wash. | Educ. gr. | *332* Union-*1094* |
| A.B., Gonzaga, 1929 | | | |
| [3]Switzer, Lee Roy | Palo Alto | Educ. gr. | 1102 Channing, P-p |
| A.B., Ohio Northern, 1906; A.B., Kansas State Normal, 1910; A.M., California, 1915 | | | |
| Sypher, Clarence | Auburn, Wash. | Phys.Ed. gr. | *436* Encina-*2668* |
| A.B., Stanford, 1928 | | | |
| Tabb, Holmes Byron | Santa Maria | Econ.96·89+59 | Al.KappaLam.-*658* |
| A.B., Stanford, 1931 | | | |
| Tachibana, Jenshiro | Milwaukie, Ore. | Pol.S. 122–11 | Japanese Club-*598* |
| [12]Taft, Alan Cowie | Palo Alto | Zoöl. gr. | 1219 Fulton, P-p |
| A.B., Stanford, 1927, A.M., 1928 | | | |
| Taft, Louise Swail | Pasadena | Hist. 142+249 | Alpha Phi-*1387* |
| [1]Taft, Orray, Jr. | Santa Barbara | Pol.S. 181+11 | *2* Leland, MP-*2713* |
| A.B., Stanford, 1931 | | | |
| [4]Tagert, Enid Wall | Menlo Park | Phil. gr. | Menlo Park-*2495* |
| A.B., California at Los Angeles, 1929 | | | |
| [5]Tagert, Ivan Curtis | Menlo Park | Pol.S. gr. | Menlo Park-*2495* |
| A.B., California at Los Angeles, 1927 | | | |
| [4]Taggart, Harold Francis | Palo Alto | Hist. gr. | *225* Dana, P-p |
| A.B., Earlham, 1915; A.M., California, 1917 | | | |
| [5]Tai, Li Sun | China | Zoöl. gr. | 942 Ramona, P-p |
| A.B., National Southeastern, 1925 | | | |
| Takesaka, James Yoshito | Irvington | S.Engr. 48·146+196 | Jap. Club-*598* |
| A.B., Stanford, 1931 | | | |
| Talbert, Ruth Hill | Monrovia | Med. gr. | 2211 Divisadero, SF-sf |
| A.B., Mills, 1928 | | | |
| [23]Tally, Milo Locke | Roseville | LD 30+9 | 141 Encina-*553* |

Tamada, Henry Toru — San Jose — Med. gr. — 1570 Buchanan, SF-sf
A.B., Stanford, 1930
[1]Tampcke, Erminio John — San Francisco — LD 88–13 — Delta Upsilon
Tanda, Henry Hisao — Salinas — Med. gr. — Japanese Club-*598*
A.B., Redlands, 1930
Tandy, Ray Elmer — Alta Loma — Hist. 177+80 *374* Kingsley, P-*1855*
[23]Tanzer, Ward Holm — Fresno — Econ. 15·110+18 Phi Delta Theta
Tanzey, Virginia B. — Kansas City, Mo. — Sc.S.-Jn.131+13 Gam.PhiBt.-*1337*
Tappan, Edward Arthur — Palo Alto — Med. gr. — 536 Middlefield, P-p
B.S., Illinois, 1924
[12]Tarbell, Adah Marion — Sacramento — Bact. 54·104–7 Sigma Kappa-*1327*
Tarbox, Joe Warren — Halcyon — Pol.S. 90·45+12 — 440 Foothill
Targhetta, Paul Pierre — Alameda — LD 94+67 — 202 Toyon-*2665*
Tarr, Danson Merle — Sierra Madre — Pre-Md.90·45+32 340Embcdo,P-p
Tarr, John Stockman — Tacoma, Wash. — Ecn.-Ac.10·139+153 431Enc.-*1024*
Tarver, Bruce Macon — Santa Ana — LD 44+12 — 247 Encina-*1704*
Tatum, Donn Benjamin — Los Angeles — LD 44+28 — 205 Encina-*2051*
[5]Taylor, Albert Ray — Los Altos — Educ. 13·196+80 LA-Bx535,Rt.1,la
Taylor, Foster M. — Milwaukee, Wis. — Engl. gr. — 475Harvard,P(Sta.A)p
A.B., Pomona, 1930
Taylor, Francis Howard — Troy, Pa. — S.Engr.140+25 565Salvatierra-*927*
Taylor, Harold Allen — San Jose — S.Eng.135·93+146 1202Shtrg,SJ-sj
A.B., Stanford, 1931
[4]Taylor, H. Grant — Los Gatos — Educ. gr. — Los Gatos
A.B., San Jose State Teachers College, 1928; A.M., Stanford, 1929
[23]Taylor, Howard Story — Palo Alto — Min. gr. — 1211 College, P-*1485*
B.S., Michigan, 1928
Taylor, James Ellery — Los Altos — Zoöl. 6·174+56 — 547 Encina
A.B., Stanford, 1931
Taylor, John Owen — Kent, Wash. — Pre-Med. 135+128 241 Brnr.-*1787*
Taylor, Mark Lincoln — Long Beach — Law gr. — 731 Homer, P-p
A.B., Stanford, 1930
Taylor, Perry Norman — Tulare — Geol. 48·135+17 — 13 Toyon-*2668*
[4]Taylor, Robert William — Los Angeles — LD ‡ — 557 Lasuen-*2391*
Taylor, Robson Ewart — Phoenix, Ariz. — Econ. 11·138+4 — 215 Sequoia-*1216*
[5]Taylor, W. Harlan — Oklahoma City, Okla. — Geol. gr. — 624 Lasuen
A.B., Dartmouth, 1929
Teach, Kathryn — San Luis Obispo — Pre-Clin. 7·191+152 — Chi Omega
A.B., Stanford, 1931
[1]Teague, Charles McKevett — Santa Paula — Econ. 180+122 — Htl. Pres., P-*1481*
A.B., Stanford, 1931
[1]Teale, Jack Nelson — Bakersfield — Geol.‡8–24 — 434 Encina-*1353*
Tebbetts, Fredrick von Horn — Hollywood — Econ. 43·57+1 — Encina
Tempest, Roberta Marie — Los Angeles — LD 95+141 — Delta Gamma-*1366*
Templeton, Jones Thompson — Los Angeles — LD 49+62 — 324 Encina-*1471*
Templeton, Robert Palmer — Portland, Ore. — Econ. 180+157 — AlphaSig.Phi-*1357*
A.B., Stanford, 1931
Tennant, Alfred Edward — Colusa — M.E. gr. — 365 Guinda, P-p
A.B., College of the Pacific, 1929; Engineer, Stanford, 1931
Tenny, Stanley Warn — Evanston, Ill. — Pol.S.(Ind.Stu.Pl.) 651Gilman,P-p
A.B., Stanford, 1931
[4]Terra, William J. — San Jose — Span. gr. — 731 E. St. James, SJ-sj
A.B., San Jose State Teachers College, 1929
[23]Terrill, Kenneth Stuart — San Francisco — LD 57+1 — Beta Theta Pi-*1335*
Terrill, Robert Philip — Los Angeles — Econ. 182+152 — Chi Psi-*1648*
A.B., Stanford, 1931
Terwilliger, Marion Pratt — Palo Alto — Pre-Med. 69·59+54 284 Roble-*1561*

[12]Tesche, Elmer Fred ,San Jose Chem. gr. 302 Sequoia-*1074*
A.B., Stanford, 1930, Engineer, 1931
[12]Thatcher, John Pemberton Reno, Nev. Law gr. SigmaAlphaEpsilon-*1305*
A.B., Princeton, 1928; LL.B., Stanford, 1931
[23]Thatcher, Ruth Clark Reno, Nev. Psych. 180+117 KappaAlphaTheta
A.B., Stanford, 1931
Thayer, Lewis A. Palo Alto Bot. gr. 815 Stanford, P(Sta.A) p
B.S., Washington State, 1925, M.S., 1926
Thayer, Mary G. San Diego Psych. 130+25 Alpha Phi-*1387*
Thebaut, William Maxwell, Jr. Oakland Med. gr. 448 Euclid, O-o
A.B., Stanford, 1929
Thigpen, William Rembert San Fernando S.Engr.95–14 Al.TauOmega-*1384*
Thomas, Cyril Woodland S.Engr. 90·95+86 303 Sequoia-*1905*
A.B., Stanford, 1931
Thomas, David Joseph Crockett Econ. 18·162+54 304 Toyon-*1855*
A.B., Stanford, 1931
[12]Thomas, Elbert Gould Palo Alto Soc.S.-Jn. 87·95+6 25 Midlfd, P-p
A.B., Stanford, 1931
Thomas, Gale Folsom Fresno S.Engr. 90·90+36 131 Toyon-*718*
A.B., Stanford, 1931
[5]Thomas, Gerald Bouchier San Diego Hist. 90·44+31 444 Encina-*2294*
[5]Thomas, Helen Loretta San Francisco Fr. 112+203 Delta Gamma-*1366*
[23]Thomas, John Oglesby Stanford Univ. Zoöl. gr. Menlo Heights-*124*
A.B., Stanford, 1928
Thomas, Lawrence Gregg Fresno Educ. gr. Theta Delta Chi-*1828*
A.B., Stanford, 1930, A.M., 1931
Thomas, Margery E. Stanford Univ. Soc.S. 152+110 KappaKappaGam.
Thomas, Max Spanish Fork, Utah S.Bus. gr. 763 Homer, P-p
B.S., Brigham Young, 1929; M.B.A., Stanford, 1931
Thomas, Robert L. Portland, Ore. Med. gr. 2321 Sacramento, SF-sf
A.B., Stanford, 1930
Thomas, Robert Scofield Oakland S.Engr. 197+165 210 Branner-*930*
A.B., Stanford, 1931
[4]Thomas, Welburne C. Fresno Zoöl. ‡ Pacific Grove-pg
Thompson, Barbara Beach Palo Alto Hist. 132+86 KappaKappaGamma
Thompson, David M. Portland, Ore. LD 75–31 Sigma Chi
Thompson, Donald Ernest Red Bluff Med. gr. 2228 Clay, SF-sf
A.B., Stanford, 1930
Thompson, Dorothy Louise Burbank Pol.S. gr. Delta Delta Delta-*1665*
A.B., California at Los Angeles, 1928; A.M., Stanford, 1931
[1]Thompson, George Wylie Los Angeles Econ.6·174+38 Beta Theta Pi-*1335*
A.B., Stanford, 1931
Thompson, Harold Vernon Fresno Hist. 97·90+139 127 Branner-*1137*
A.B., Stanford, 1931
Thompson, Henry Royer Los Angeles Psych. gr. 610 Cowper, P-p
A.B., California at Los Angeles, 1928; A.M., Stanford, 1931
[12]Thompson, James Greer Los Angeles S.Engr.7·174+19 AlphaDeltaPhi-*J*
A.B., Stanford, 1931
Thompson, Joseph Alden San Francisco Pol.S. 180+44 Phi Kappa Sigma
Thompson, M. Lewis Long Beach Econ. 137+106 203 Toyon-*2612*
[12]Thompson, Seton Hayes Seattle, Wash. Zoöl. gr. 627 Homer, P-*841*
B.S., Washington, 1927, A.M., 1929
[4]Thompson, Stanley I. Centralia, Wash. Educ. 135·16–1 804 Bryant, P-p
Thompson, Walter Theodore Oakland Hist. 70·88+10 125 Branner-*906*
Thompson, William Alexander San Jose Econ.-Acct. 100+11 Kappa Alpha
[1]Thompson, William F. Seattle, Wash. Zoöl. gr. Seattle, Wash.
A.B., Stanford, 1911, Ph.D., 1931
[1]Thomson, Robert B. Los Angeles Law gr. 1566 Cowper, P-p
A.B., Stanford, 1929

[4]Thomson, Ruth Haines — Orange — Educ. gr. — 657 Cowper, P-p
A.B., Pacific University, 1917; A.M., Washington, 1921
Thorburn, Earle David — San Francisco — S.Engr. 108+105 — 17 Toyon-*2616*
Thorner, Juliet Emma — Santa Barbara — Pre-Clin.189+158 — 353Adsn,P-*1243*
A.B., Stanford, 1931
[23]Thornton, Norton Dolph — Palo Alto — Pol.S. gr. — 945 Webster, P-p
A.B., Stanford, 1930
Thornton, Robert Yenney — Portland, Ore. — Soc.S. 135+90 — 307 Branner
Thorpe, George Kelly — Van Nuys — LD 45+6 — *232* Encina-*1765*
Thorson, Olaf Herman — Palo Alto — S.Bus. gr. — 540 Bwdn, P-(Sta.A) p
A.B., Luther, 1918
Thorup, Richard Russel — Salinas — LD 60+49 — *29* Encina-*1522*
[5]Throndson, Albert Harold — San Francisco — LD 91+3 — Phi Delta Theta
Throndson, Edward Julian — San Francisco — Chem. 5-209+102 — Phi Delta Theta
A.B., Stanford, 1931
Thum, Margaret — Pasadena — LD 45+48 — 220 Roble-*1964*
Thurlow, John Fuller — Santa Rosa — Pre-Med. 90-45+10 — 212 Seq.-*2796*
Thurmond, Alfred Frank — Carpinteria — S.Engr.90-92+45 — 1147Ramona,P-p
A.B., Stanford, 1931
Tickner, Boynton Bryan — San Francisco — Econ. 162+50 — Beta Theta Pi-*1335*
Timothy, Arthur Cowell — San Jose — Educ. gr. — 854 S. 2nd, SJ-sj
A.B., San Jose State Teachers College, 1929
Timothy, Ralph Killion — San Jose — Educ. gr. — 854 S. 2nd, SJ-sj
A.B., San Jose State Teachers College, 1929
Ting, Peter Clare — Porterville — Zoöl. 159+44 — 119 Toyon
[5]Tinsley, Gladney Jack — Homer, La. — Educ. gr. — 535 Salvatierra-*2164*
B.S., Louisiana, 1925, M.S., 1927
[5]Tinsley, Ruth Elizabeth — Kansas City, Mo. — Psych. gr. — 252 Kingsley, P-p
A.B., Stanford, 1929, A.M., 1931
[5]Tinsley, William W. — Flagstaff, Ariz. — Hist. gr. — 339 Kellogg, P-*1182*
A.M., Clark, 1925
[1]Titus, Gordon Woodruff — Pasadena — LD 59–25 — Alpha Sigma Phi-*1357*
Tobias, George Howard — Garden Grove — Econ. 90-46+17 — 564 University,P-p
Tobin, James Lee — Butte, Mont. — Med. gr. — 1935 Webster, SF-sf
A.B., Stanford, 1930
[3]Tod, Jay Kennedy — Cloverdale — Econ. — 2245 Tasso, P-p
Todd, Eric Edward — Vancouver, B.C. — Chem. gr. — 321 Cowper, P-p
A.B., British Columbia, 1929, A.M., 1930
[4]Todd, Max Alexander — Arcata — S.Biol.‡ — 206 Union-*2635*
[4]Todd, Walter Ernest — Palo Alto — Fr. gr. — *727* Middlefield, P-p
A.B., Wesleyan, 1921
Toepke, William Point — San Mateo — Econ. 115–14 — Delta Upsilon
Toll, Carroll Costello — Glendale — LD 99+14 — Beta Theta Pi-*1335*
[134]Tolman, John vanSteen — Stanford Univ. — LD 70+51 — 506 Mayfield-*830*
[12]Tomasini, Loring — Berkeley — Soc.S. 175+89 — *228* Toyon-*2665*
[5]Tomilin, Michael I. — Palo Alto — Psych. gr. — 735 Guinda, P-*568*
A.B., Stanford, 1930
[12]Tomlin, Frank Earl — Soochow, China — Educ. gr. — Cupertino-*2203*
B.S., Boston, 1920; Ed.M., Harvard, 1922
Tomlinson, Alfred T. — Santa Barbara — S.Bus. gr. — 206 Union-*643*
A.B., Stanford, 1929, M.B.A., 1931
Tomlinson, Charles Bruce — Santa Barbara — Econ. 90-41+10 — 593Salvatierra-*643*
[4]Tompkins, Bernice Brooks — San Jose — Hist. gr. — 565 Salvatierra
A.B., Stanford, 1917, A.M., 1927
Tompkins, Grace Charlotte — Pasadena — Zoöl. 90-116+106 — Roble-*2693*
A.B., Stanford, 1931
[5]Tompkins, Harold Phillip — Anaheim — Bact. 90-81+16 — 335 Kipling, P-p

Topping, William Keith — Pasadena — LD 48+33 — 400 Encina-*2162*

Torbert, Harold Chester — San Francisco — Med. gr. — 2321 Sacramento, SF-sf
A.B., Stanford, 1929

[4]Torreblanca,EugenioD. — Barcelona, Spain — Span. gr. — 521 Lasuen-*1305*
A.B., California at Los Angeles, 1931

[124]Torrence, George Wallace — Yankton,S.D. — LD 43+40 — 408 Encina-*2186*

[2]Torrence, Maurice Dean — Palo Alto — Econ. 127–10 — Beta Theta Pi-*1335*

[4]Tostenson, Frederick O. — Fresno — Germ. gr. — 311 Toyon-*879*
B.S., Haverford, 1911

Tousey, Ralph, Jr. — Seattle, Wash. — Soc.S. 103·41+13 — 633 Seneca, P-p

Tower, Myron Frick — Acampo — Econ. 46·134+44 — 215 Toyon-*2488*
A.B., Stanford, 1931

Towle, Philip Hamilton — Woodland — S.Engr. 143+72 — 108 Branner-*1219*

Townley, F. Jane — Stanford Univ. — Germ. 140+137 — 661 Cabrillo

[234]Towns, George A., Jr. — Atlanta, Ga. — Econ. 135·30+5 — 443 Fulton, P-p

[5]Townsend, John E. — Berkeley — Econ. 120+15 — Phi Kappa Psi

Townsend, Walter Barton — Elmira, N.Y. — Educ. gr. — 539 Lasuen-*1863*
A.B., Cornell, 1921, M.S., 1926

Toy, Arthur John — Pasadena — Pre-Med. 90·45+3 — 340 Embco,P-p

[4]Tozer, George Edward — Windsor, Colo. — Educ. gr. — 164 Tasso, P-p
A.B., Nebraska Wesleyan, 1914; A.M., Colorado State Teachers College, 1929

Traub, Leo Milton — Salinas — LD 48+48 — 107 Encina-*1058*

Trautman, Gerald Hough — Ontario — LD 46+18 — 320 Encina-*1411*

[4]Travers, Harold E. — Aurora, Colo. — Educ. gr. — 203 Bryant, P-p
A.B., Colorado State Teachers College, 1929

Tremecar, Ruth — Pasadena — Math. 97·47+67 — 166 Roble

[23]Tretten, Richard Emile — San Francisco — LD 30–6 — 448 Encina

[12]Trigeiro, Anton James — Sebastopol — Ed.-G.A. 90·26–9 — 102 Sequoia-*101*

Triplett, William Robert — Sacramento — E.E. gr. — 107 Sequoia-*86*
A.B., Stanford, 1930

Triplett, William Thomas — Spokane,Wash. — LD 93+82 — 611 Waverley, P-*1305*

[4]Trombetta, Julius C. — Oakland — Educ. gr. — Toyon
A.B., Stanford, 1927

[12]Tronslin, Cyril Bernhard — Palo Alto — Econ. 90·95+50 — 360 Kingsley, P-p
A.B., Stanford, 1931

[1]Troth, Hubert Carlyle — Los Angeles — S.Engr. 102–4 — 211 Branner-*1000*

Trotter, John Sickles — Honolulu, T.H. — Econ. 129+23 — Beta Theta Pi-*1335*

[4]Trowbridge, Dwight Howe — Fresno — Pre-Clin. 183+54 — SF Hosp., SF-sf

[5]Tsou, Pang Liang — Nanchang, China — Pol.S. gr. — 635 Bryant, P-*912*
A.B., Stanford, 1931

Tuchler, Maier Israel — San Francisco — Bact. 20·160+57 — 233 Branner-*2734*
A.B., Stanford, 1931

Tucker, Glen Otto — San Jose — Econ. 90·90+43 — 430 Encina-*2024*
A.B., Stanford, 1931

Tucker, James Bradley — Twin Falls, Idaho — Econ. gr. — 234 Union-*2176*
A.B., Stanford, 1931

Tudor, Thomas Hubbard — Santa Barbara — S.Engr. 160+32 — 105 Branner-*2757*

Tully, Dorothy Grace — Palo Alto — Engl.-P.Sp.104·76+44 — Kp.Kp.Gm.
A.B., Stanford, 1931

Tupper, James Tullius — Fresno — Pre-Med. 67·70+2 — 444 Encina

[4]Turk, Laurel Herbert — Greencastle, Ind. — Span. gr. — 1256College,P-(Sta.A)p
A.B., Missouri, 1924; A.M., Kansas, 1926

Turkel, Sigmund Ashur — Los Angeles — Med. gr. — 2321 Sacramento, SF-sf
A.B., Stanford, 1929

[2]Turner, Albert Hamlin — Campbell — Chem. 115·87+4 — 420 Ramona, P-p
A.B., Stanford, 1931

[1]Turnure, Dallas Richard — Portland, Ore. — Econ. 48·91+41 — Delta Chi-*1304*

[124]Tway, Irwin Deering — Mesa, Arizona — LD 58–7 — Zeta Psi-*B*
Twelvetrees, John William, Jr. — La Canada — LD 65–20 — Delta Tau Delta-*1363*
[4]Twigg, Harry Oliver — Los Banos — Engl. gr. — 565 Hamilton, P-p
A.B., California, 1927
Twohy, Desmond Daniel — Spokane, Wash. — Pre-Med. gr. — Military Way-*942*
A.B., Georgetown, 1930
Tyler, Donald Mclaren — Pasadena — Econ. 54·126+3 — Delta Kappa Eps.
A.B., Stanford, 1931
Uhl, George Meredith — San Francisco — Med. gr. — 2355 California, SF-sf
A.B., Stanford, 1928
[4]Uhl, Winnifred Peck — Sacramento — LD ‡ — 150 Roble
Ullmann, Helen Luscombe — Santa Barbara — LD 92+77 — Kappa Kappa Gamma
[3]Ullmann, Henry J., Jr. — Santa Barbara — LD 40–17 — Phi Kappa Sigma
Ulrich, John Armond — Klamath Falls, Ore. — LD 90+13 — 120 Toyon-*1831*
Ulrici, Dorothy Alma — Stockton — Hist.23·171+200 — Del.Del.Del.-*1325*
A.B., Stanford, 1931
Uphoff, Howard Franklin — Milwaukee, Wis. — Engl. 87·48+35 — 409 Encina
Upton, John Roland — Ontario, Can. — Med. gr. — 2321 Sacramento, SF-sf
A.B., Stanford, 1930
[4]Uriell, Vida Inez — San Jose — Educ. gr. — 145 S. 17th, SJ-sj
A.B., San Jose State Teachers College, 1928
Usher, Edith Josephine — San Francisco — LD 92+76 — Chi Omega
Utt, Anita Lee — Palo Alto — Soc.S. 45·135+75 — 1411 Webster, P-p
A.B., Stanford, 1931
Utt, Jean Elizabeth — Palo Alto — Span. 183+133 — 1411 Webster, P-p
A.B., Stanford, 1931
[12]Utter, John William, Jr. — Anaheim — E.E. gr. — 561 Encina-*2608*
A.B., Stanford, 1931
[1]Vahey, George — Berkeley — Pol.S. gr. — 1618 Cambridge, P-*2787*
A.B., Stanford, 1930
Vail, Granville B. — Hollywood — LD 46+7 — 245 Encina-*1802*
[25]Valentine, John Neilson — Pocatello, Ida. — LD 60·22–16 — 140 Encina-*962*
[12]Valentine, William W. — San Marino — Geol. 180+110 — Hotel President, P-p
A.B., Stanford, 1931
Van Dellen, Elzo L., Jr. — Ventura — LD 45+35 — *227* Encina-*616*
Vandermast, Newell T. — Santa Ana — LD 89+145 — Delta Upsilon
[12]VanderZwiep, Philip J. — San Francisco — S.Biol. 180+88 — 239 Toyon-*2792*
A.B., Stanford, 1931
Van Deusen, Paul — Los Angeles — Econ. 138+3 — Sigma Nu-*1385*
Van Deventer, James Kendall — Long Beach — Phyl. gr. — 304 Union-*1323*
A.B., Stanford, 1931
Van Dusen, Frederick E. — Excelsior, Minn. — LD 51·52+9 — Zeta Psi-*1422*
Van Etten, Richard Carteret — Oakland — LD 48+39 — 401 Encina
[4]VanKirk, Orval Alden — Piedmont — LD — 242 Toyon-*2467*
[12]Van Meter, Maxwell J. — Norwalk — Fr. 90·91+1 — 214 Union-*53*
A.B., Stanford, 1931
Van Patten, Dolores — Stanford Univ. — LD 90+48 — 579 Alvarado
[2]Van Polen, Herman — University Park — Engl. gr. — Menlo Heights
A.B., Denver, 1916
Van Vleet, George, Jr. — Fresno — LD 65·105+15 — Kappa Sigma-*1326*
Van Wagenen, Richard W. — Hollywood — LD 49+63 — 327 Encina
Van Zandt, Vernon — San Francisco — Med. gr. — 2321 Sacramento, SF-sf
A.B., Southern California, 1922
[1]Varian, Russell Harrison — Palo Alto — Phys. gr. — 1070 Forest, P
A.B., Stanford, 1925, A.M., 1927
[23]Varney, Aileen Virginia — San Francisco — LD 30+38 — *268* Roble-*1223*
[4]Vasché, Joseph Burton — Oakdale — Educ. gr. — 804 Bryant, P
A.B., San Jose State Teachers College, 1931

| | | | |
|---|---|---|---|
| [5]Vasey, Thomas Kilgore | Long Beach | Pol.S. 88·48+26 | 433 Encina-*2149* |
| Vaughn, Gage Bonnell | Los Angeles | Law gr. | 519 Webster, P-p |
| A.B., California, 1930 | | | |
| Vawter, Dorothy F. | Benton Harbor, Mich. | LD 45+52 | 320 Roble-*736* |
| Vellenga, Peter E. | The Hague, Holland | Germ. 68·112+35 | 553 Slvtra-*972* |
| A.B., Stanford, 1931 | | | |
| Venter, Melvin Harry | Sacramento | Econ. 90·44+2 | 583 Salvatierra |
| Vernier, Helen May | Stanford Univ. | LD 90+57 | 679 Mirada-*1425* |
| Vernier, Robert Louis | Stanford Univ. | S.Engr. 138+146 | 679 Mirada |
| [23]Vertrees, Rodney Albert | Rio Oso | S.Engr. 90·31+16 | 311Sequoia-*2384* |
| Vestal, Raymond George | Red Bluff | LD 91+8 | 203 Sequoia-*1866* |
| Vice, Leslie Thomas | Vallejo | S.Engr. 124–13 | 250 Branner-*1293* |
| Vickers, Russell Rogers | Anderson | Zoöl. gr. | 564 University, P-p |
| A.B., Stanford, 1931 | | | |
| Viera, John Clifford | Mill Valley | LD 81+37 | 104 Sequoia-*618* |
| Viets, Henry Edwin | Long Beach | S.Engr. 36·150+46 | Sigma Chi |
| A.B., Stanford, 1931 | | | |
| [23]Vignolo, Caesar John | Raymond | Hist. 108·75+53 | 537 Encina-*2174* |
| A.B., Stanford, 1931 | | | |
| Vizzard, James Melville | Bakersfield | Pol.S. 90·50+88 | Fire House-*1220* |
| [4]Vogt, George C. | Palo Alto | Phys.Ed. gr. | 147 Emerson, P-p |
| B.S., Montana State College, 1929 | | | |
| Vogt, Paul Reuter | The Dalles, Ore. | Pre-Med. 136+57 | Pacific Grove-pg |
| [4]Vogt, Virginia Laughlin | Palo Alto | LD ‡ | 147 Emerson, P-p |
| [12]Vollbrecht, J. Dietrich | Hamilton, Ohio | Germ. gr. | Menlo Jr. Col., MP-mp |
| B.S., Miami, 1927; A.M., Cincinnati, 1929 | | | |
| [12]Volonté, Mario Ambrose | San Francisco | Econ. 42·78+8 | 210 Toyon-*2766* |
| Von Breton, Hamilton | Los Angeles | LD 44+63 | 335 Encina-*2043* |
| [5]Vonder Kuhlen, Henry C. | Los Angeles | Geol. 135·48+2 | 604 Gilman, P-p |
| Voorhees, Helen Bennett | Koss | Hist. 90·90+70 | 179 Roble-*2333* |
| A.B., Stanford, 1931 | | | |
| [23]Voorheis, Virginia G. | Stanford Univ. | Pol.S. gr. | 607 Lasuen |
| A.B., Stanford, 1929 | | | |
| Voris, Albert Travers | Petaluma | LD 89+128 | 312 Sequoia-*2198* |
| [4]Waage, John | Huntington Beach | Educ. gr. | 1612 California, P |
| A.B., Luther, 1918; A.M., Stanford, 1928 | | | |
| [3]Wade, Robert David, Jr. | Laguna Beach | Soc.S.-Jn.46·58–10 | Delta Chi-*1304* |
| [4]Waggoner, Charles Ilo | Laveen, Ariz. | Hist. gr. | 334 Union |
| A.B., California at Los Angeles, 1929 | | | |
| Wagner, Irwin Morrison | Sacramento | Econ. 90·43+9 | Phi Kappa Psi |
| [5]Waite, Russell Scott | Riverside | Law gr. | 222 Sequoia-*1242* |
| A.B., Stanford, 1928 | | | |
| Waite, Willis Willard | El Paso, Texas | Phys. 130·43–31 | 585 Slvtra-*1009* |
| Waldorf, Norman Omar | San Jose | Engl. gr. | 939 Villa, SJ-sj |
| A.B., Stanford, 1930 | | | |
| Wales, Joseph Howe | Pasadena | Zoöl. gr. | Pacific Grove-pg |
| A.B., Stanford, 1930 | | | |
| Walk, Udell Clifford | Santa Rosa | Econ. 143+68 | 210 Toyon-*647* |
| [3]Walker, Edwin Olen | Wyatt, La. | LD 65·40–22 | Sigma Chi |
| Walker, Frederick Laurence | Ben Lomond | Chem. 90·39–3 | 206 Sequoia |
| [4]Walker, George W., Jr. | Fresno | Pol.S. ‡ | 1342 Middlefield, P-p |
| [5]Walker, James Eugene | Palo Alto | Law gr. | 1551 College, P-*1681* |
| A.B., Stanford, 1930 | | | |
| Walker, Lawrence Andrew | Weed Patch | S.Engr. 106–24 | Sigma Chi |
| Walker, Mark A. | Wichita Falls, Texas | Econ. 90·91+1 | 762 Dolores |
| A.B., Stanford, 1931 | | | |

[4]Walker, Minnie M. Willows Educ. gr. 660 Salvatierra
A.B., Valparaiso, 1895
Walker, Ralph J. San Jose Med. gr. 2180 Washington, SF-sf
A.B., Stanford, 1929
Walker, William Burgess Los Angeles S.Engr. 136+88 212 Toyon-*1902*
Wallace, Frances W. Phoenix, Ariz. Econ. 136+44 Kappa Alpha Theta
Wallace, Gale Douglas Piedmont Soc.S.-Jn. 183+56 333 Encina
A.B., Stanford, 1931
[4]Wallace, Glenn Irving Centralia, Wash. Educ. gr. 564 Mayfield
A.B., Northwest Nazarene College, 1925; A.B., Washington, 1928
Wallace, Lawrence Alma Oakland LD 90+116 230 Branner
Wallace, Ralph Chester Oakland S.Bus. gr. 214 Union
A.B., Stanford, 1930
[23]Wallace, William Lewis Piedmont LD 28+23 248 Encina
[12]Waller, Lester Arthur Piedmont Hist. 90·23–18 208 Escobita, P-p
[234]Walling, Curtis Reynolds Fowler Educ. gr. 1202 Byron, P-p
A.B., Stanford, 1925, Engineer, 1926
[4]Wallis, Jesse Irving Sacramento LD‡16+21 1314 Parkinson, P-p
Walls, William Lester Dayton, Wash. LD 94+104 135 Toyon-*1733*
Walser, Hester Hazel Palo Alto Span. 32·136+117 1430Mdlfd, P-p
[4]Walsh, Norman Edward Fresno Econ. gr. 141 Toyon-*986*
A.B., Stanford, 1930
[4]Walter, Arthur Salinas Educ. gr. 564 University, P-p
A.B., Stanford, 1918, A.M., 1919
[4]Walters, Arthur John Beverly Hills LD Toyon-*2605*
Walters, Jack Davant San Diego Soc.S.-Jn.46·91+49 PhiKap.Sigma
Walters, Morgan L. Rock Springs, Wyo. LD 91+65 215 Cowper, P-*1158*
[23]Walters, William A., Jr. Beverly Hills LD 32+8 352 Encina-*2533*
[5]Wang, Cheng Peking, China Econ.-Soc. gr. Chinese Club-*2652*
A.B., Stanford, 1930, A.M., 1931
Wang, Kan Shensi, China Econ. 90·55–7 637 Stanford, P-p
Wanless, John Fred Salt Lake City, Utah S.Engr. 181+105 229 Branner-*2757*
A.B., Stanford, 1931
[12]Ward, Harrell Law San Francisco Econ. 138+8 SigmaAlphaEps.-*130*
Ward, John Henry, Jr. Redlands Med. gr. 2401 Sacramento, SF-sf
A.B., Redlands, 1927
Ward, Leonard Harry Butte City LD 83–10 Phi Sigma Kappa-*538*
[3]Ward, Mary Aloysius San Francisco Educ. gr. Staller Ct., P-p
B.S., Columbia, 1925
[5]Ward, Shirley C., Jr. Pasadena Law gr. 2183 Bryant, P-p
A.B., California, 1929
Wardwell, Ralph Watts Bakersfield S.Engr. 133+26 PhiSig.Kappa-*538*
[3]Wardwell, Robert Scribner Bakersfield S.Engr.90·13+4 PhiSig.Kappa-*538*
Warmke, Harry Earl San Jose S.Biol. 52·138+214 201S.20th,SJ-sj
A.B., Stanford, 1931
Warner, Benton Eugene, Jr. Mineola,N.Y. LD 46–8 30 Encina-*856*
[4]Warner, Cliff Bloomfield, Iowa Engl. gr. 431 Channing, P-p
A.B., Iowa, 1926, A.M., 1927
[5]Warner, Clive Maples Maricopa Law gr. Delta Upsilon
A.B., Stanford, 1931
[1]Warner, Stewart Clarke Riverside Econ. 50·105–20 Phi Delta Theta
[5]Warren, Isabell Modesto Educ. gr. Sigma Kappa-*1327*
A.B., Stanford, 1931
Warren, William True Palo Alto LD 85+45 Delta Kappa Epsilon
Washburn, Charles Lawrence Pasadena LD 70+15 Chi Psi-*1648*
[3]Watanabe, Chugo Tochigiken, Japan Pol.S. 90·5+0 260 View, MV-mv
[12]Waterhouse, John C. Santa Cruz Econ. 90·39–14 123 Toyon-*1572*

Waterhouse, Richard Seymour SantaCruz LD 44·35+1 350 Encina-*1572*
Waterman, Glenn Cotton San Jose LD 45·77+33 Sigma Chi
Waters, George Luther Salt Lake City, U. LD 41+13 235 Encina-*1431*
Watkins, Robert Preston San Francisco Med. gr. 741 Homer, P-p
A.B., Stanford, 1930
Watson, Albert John San Mateo Econ. 109–1 PhiSigmaKappa-*538*
[1]Watson,CampbellHagerman BeverlyHills S.Biol.54·126+40 BetaThe.Pi-*1335*
A.B., Stanford, 1931
[134]Watson, Edward Elam Ash Grove, Mo. Educ. gr. 1147 Ramona, P-p
A.B., B.S., Southwest Missouri State Teachers College, 1926
[12]Watson, Elizabeth Errington Piedmont LD 74+122 Pi Beta Phi-*1918*
Watson, Frances Rhodes Palo Alto Med. gr. 2275 Jackson, SF-sf
A.B., Stanford, 1927
[4]Watson, Joel Ferris Parker, Ariz. Educ. gr. 616 Webster, P-p
B.S., Arizona, 1929
[1]Watson, John William Westwood LD 14–8 210 Encina-*2015*
Watson, Mary Louise Washington, D.C. Econ. 180+21 KappaKappaGamma
A.B., Stanford, 1931
[12]Watt, Thomas McCourt San Francisco Pol.S. 180+52 Beta Theta Pi-*1335*
A.B., Stanford, 1931
Watts, Otto Olive Abilene, Texas Chem. gr. 521Cornell,P-(Sta.A)p
A.B., Simmons, 1913; A.B., Rice Institute, 1916; A.M., Colorado, 1923
Way, Florence Ellen Riverside Engl. gr. Madroño
A.B., Nebraska State Teachers College, 1928
Way, Harold Franklin Petaluma S.Bus. gr. 505 Encina-*1803*
A.B., Stanford, 1928, J.D., 1930
[5]Way, John W., Jr. Pasadena Educ. gr. 210 Sequoia-*932*
A.B., Stanford, 1931
Wayland, L. C. Newton Plainview, Texas Phyl. 135·32+3 465 Ruthven, P-p
Wayne, James Wade Wallace, Idaho LD 40+27 111 Encina-*2008*
[1]Weaver, John Carrel Piedmont Econ. 133–15 Phi Kappa Psi
Weaver, Margaret Lydia Spokane, Wash. Psych. 135·47+47 178 Roble
A.B., Stanford, 1931
Weaver, Robert Crowell Spokane, Wash. LD 100+133 Sig. Al. Eps.-*1305*
Weaver, Stuart Eldridge Palo Alto LD 49+46 234 Encina-*1757*
Webb, Harrison J. San Francisco S.Bus. gr. 223 Union-*2803*
A.B., Stanford, 1929, M.B.A., 1931
Webb, Riley Garn Provo, Utah Law gr. 947 Waverley, P-p
A.B., Stanford, 1930
[5]Webb, Richard F. Covina Phil. 129+28 AlphaT.Omega-*1384*
Webster, George Estep Creston, Iowa Phyl. 90·93+85 205 Emerson, P-p
A.B., Stanford, 1931
[12]Webster, George V., Jr. Carthage, N.Y. LD 91+18 Kappa Sigma-*1326*
[12]Webster, Gilbert William San Francisco LD 63+38 103 Sequoia
Webster, Grace Margaret Long Beach Engl. 92·47+39 165 Roble-*2058*
Webster, James Ashley Vallejo Econ. 158+5 250 Branner-*2668*
Webster, Roger Bertram Stockton Law gr. 564 Encina-*1675*
A.B., Stanford, 1930
[1]Weck, Frank Alan Oakland Math. 181+58 331 Encina-*2334*
A.B., Stanford, 1931
Weckbach, Hanford E. Denver, Colo. Phys. 99·44+38 530 Webster, P-p
Weddle, Robert Parker N. Sacramento Zoöl. 138+185 247 Toyon
Weeks, Carrol Lamont Long Beach Med. gr. 2180 Washington, SF-sf
A.B., Stanford, 1929
Weeks, Leslie Morshead Grass Valley LD 90+51 114 Branner-*2757*
[4]Wees, Wilfred Rusk Camrose, Alta. Psych. gr. 465 Ruthven, P-*1541*
A.B., Alberta, 1923, A.M., 1926, Ed.B., 1928

de Weese, R. Willard Portland, Oregon LD 93+67 418 Encina-*1468*
Weesner, Charles Clifford Piedmont Hist. 143+71 Al. Tau Omega-*1384*
Wehe, Dorothy Jacque San Francisco LD 45+23 225 Roble
[12]Weidlein, William D. Kansas City, Kans. E.E. gr. 1612 California, P-*1821*
B.S., Kansas, 1917; Engineer, Stanford, 1931
Weigle, Cyril Gordon Lomita Park Bact. 90·93+4 209 San Luis, LP-lp
A.B., Stanford, 1931
Weihe, George Tyson Alameda Econ. 90·43+3 DeltaKappaEpsilon
[5]Weil, Conrad, Jr. Menlo Park Law gr. 772 Harvard Rd., MP-mp
A.B., Stanford, 1926
Weil, Elizabeth Anne San Francisco LD 43–9 234 Roble-*1241*
Weinberg, Laurence Milton Los Angeles Law gr. 328 Union-*1081*
A.B., Stanford, 1930
Weinberger, Jacques San Francisco LD 95+62 Kingscote
[1]Weisman, Theodore Los Angeles Law gr. 759 Middlefield, P-*36*
A.B., Stanford, 1926, LL.B., 1931
[12]Welch, Jerome San Francisco LD 77–22 Beta Theta Pi-*1335*
Welch, Jules C., Jr. Waynesville, N.C. Chem. 135·47+48 512 Sequoia
A.B., Stanford, 1931
[3]Welch, Marshall Earle Sacramento Econ. 90·13+13 PhiSig.Kappa-*538*
[5]Welker, Russell R. Montpelier, Idaho Psych. gr. 628 Webster, P-p
A.B., Brigham Young, 1928
[4]Weller, George Carl S. San Francisco Educ. gr. 500 Baden, SSF-ssf
A.B., Whitworth, 1920
[5]Weller, Horace A. Fort Bragg Hist. 90+7 102 Sequoia
Wells, Edward Curtis Portland, Oregon S.Engr. 93·95+152 318 Union-*1097*
A.B., Stanford, 1931
Wells, Ernest Amos Pasadena Math. 3·177+190 210 Sequoia
A.B., Stanford, 1931
Wells, John Emmet El Centro Econ. 181+128 223 Toyon
A.B., Stanford, 1931
Wells, Phillip Hunt San Francisco Med. gr. 2321 Sacramento, SF-sf
A.B., Stanford, 1929
[12]Wells, Ruth Pasadena Med. gr. 2115 California, SF-sf
A.B., Stanford, 1929
[3]Wells, Walker Marshall San Jose Pre-Med. gr. 140 Tillmann, SJ-sj
A.B., Stanford, 1928
[1]Welty, Isabelle Ainsworth Spokane, Wn. LD 253 Roble-*2413*
Wendell, Paul V. W. Los Angeles LD 101+23 Theta Chi-*1383*
[5]Wendt, Albert Richard San Jose M.E. gr. 100 N. Market, SJ-sj
A.B., Stanford, 1930
Wendt, Douglas Dudley San Jose LD 97+79 145 E. San Carlos, SJ-sj
[34]Wenger, Jared Eric La Crescenta Fr. gr. Union
A.B., California at Los Angeles, 1931
[4]Wenner, Blanche Howard Seattle, Wash. Educ. gr. 715 Salvatierra-*1038*
A.B., Wellesley, 1905
Wentworth, William Pond Berkeley LD 90+16 Phi Gamma Delta
Wentz, John Roby Sacramento Engl. 90·43+38 209 Sequoia-*2643*
Wentz, Kenneth Lee Sunnyvale Bact. 164+67 Sunnyvale-s
Werder, William Maddux Redwood City S.Eng.30·175+124 Del.T.Del.-*1363*
Werthman, Elizabeth Cecelia Menlo Park Econ. 131+34 MenloPk-Bx171,mp
Wessels, Arthur Lynn Ukiah Med. gr. 2180 Washington, SF-sf
A.B., Stanford, 1929
[5]West, Arnold J. Aberdeen, Wash. Econ. 171+17 Sigma Chi
West, Elizabeth Dearing Denver, Colo. Econ. 9·171+223 Chi Omega
A.B., Stanford, 1931
[12]West, George Lybrook, Jr. Burlingame Econ. 43·63–15 Chi Psi-*1648*

West, Mildred Adele — San Mateo — LD 66+24 — Gamma Phi Beta-*1337*
[12]West, Nathaniel Smith — San Francisco — Bact. 90·63–12 — 305 Sequoia-*1766*
[4]West, Roy S. — Hagerman, N.M. — Econ. 120·45+35 — 906 S. 8th, SJ-sj
[4]West, Russell Lewis — San Jose — Educ. gr. — 736 Webster, P-p
A.B., San Jose State Teachers College, 1926
[12]Westheimer, Jerome — Ardmore, Okla. — Geol. 19·130+134 — 624 Lasuen-*3029*
[12]Westigard, Clarence Norman — San Mateo — M.E. gr. — 123 N.Ellsworth, SM-sm
A.B., Stanford, 1924, A.M., 1925
[4]Weston, Ralph Emerson — Sacramento — Math. gr. — 213 Union
A.B., Stanford, 1922
Westsmith, Richard Alan — Los Angeles — Pre-Clin. 186+93 — PhiKappaSigma
A.B., Stanford, 1931
[4]Wetzler, Lewis — Scottsdale, Ariz. — Hist. gr. — 334 Union
A.B., Arizona, 1929
Weyl, Bertin A., Jr. — Los Angeles — Econ. 9·130+87 — 255 Toyon-*694*
Weymouth, Frank William — San Francisco — Span. 195+173 — 117 Toyon-*1412*
A.B., Stanford, 1931
Wharton, Jay Bigelow, Jr. — McKittrick — LD 49+22 — 136 Encina
[5]Wheeler, Harry Eugene — Eugene, Oregon — Geol. gr. — 2290 Ramona, P-p
B.S., Oregon, 1930
Wheeler, Howard True — Mountain View — Span. gr. — 976 California, MV-mv
B.S., California, 1920; A.M., Stanford, 1929
Wheeler, Joseph Henry — Downey — Hist. 92·50+48 — Sigma Chi
Wheelis, Denson Reagan — Los Angeles — Pre-Clin.135·51+96 — 333Union-*2377*
A.B., Stanford, 1931
Wheelis, John M., Jr. — Los Angeles — Med. gr. — 2321 Sacramento, SF-sf
A.B., Stanford, 1928
Whitaker,FrederickGordon — Spokane,Wn. — LD 48–10 — 39 Encina-*1503*
[4]Whitaker, Joseph Eric — Palo Alto — Engl.-P.Sp. gr. — 2245 Tasso, P-p
A.B., Stanford, 1929
[124]Whitaker, Margaret Daniels — Piedmont — LD 31+25 — 157 Roble-*2394*
Whitaker, Virgil Keeble — Spokane, Wash. — Engl. gr. — 438 Encina-*1503*
A.B., Stanford, 1929, A.M., 1930
[1]White, Beatrice Mary — Hailsham, England — Engl. gr. — 1027 Bryant, P-p
B.A., London, 1923, M.A., 1926
[1]White, Bertha Deane — Atlantic City, N.J. — Engl. gr. — 551 Salvatierra-*2352*
A.B., Swarthmore, 1926
White, Charles Henry — Los Angeles — LD 44+57 — 205 Encina-*2041*
White, Donald Paul — Syracuse, Kansas — LD 50+88 — 209 Encina-*705*
[1]White, Douglas Ashbridge — Glendale — Econ. 180+6 — Theta Delta Chi-*1828*
A.B., Stanford, 1931
[12]White, Fillmore, Jr. — San Francisco — S.Engr.135+17 — Th.Delta Chi-*1828*
White, George Clifford — Pasadena — S.Engr. 96·94+46 — *229* Union-*2048*
A.B., Stanford, 1931
White, George Russell — Los Angeles — Econ. 113+50 — Beta Theta Pi-*1335*
White, Gordon Ashbridge — Glendale — LD 88+70 — Delta Upsilon
[12]White, Henry Gordon — Oakland — S.Bus. gr. — *329* Union-*538*
A.B., Stanford, 1930
[4]White, Hugh Vernon — Stockton — Phil. gr. — 335 Union-*135*
A.B., California, 1917
White, Jack Lincoln — Sacramento — Chem. 90·45+65 — 314 Sequoia-*2121*
White, Kenneth Ashbridge — Glendale — Econ. 175+28 — Delta Upsilon
[4]White, Mildred Virginia — Riverside — Educ. gr. — 333 Waverley, P-p
A.B., Redlands, 1930
White, Ralph Edgar — Hillsborough — LD 32–28 — 13 Encina-*2272*
White, Ralph Kirby — Farmington, Mich. — Psych. gr. — 314 Union-*75*
A.B., Wesleyan, 1929
[1]White, Truman St. John — Fresno — LD 50–34 — Theta Chi-*1383*

[3]White, Vernon — San Carlos — Chem. 100·7–11 — 110 Dale, SC-sc
[3]White, Willard Elmer — Santa Ana — Econ. 90·55+27 — Delta Chi-*1304*
Whitecotton, George Otis — Oakland — Med. gr. 2321 Sacramento, SF-sf
A.B., California, 1923
[23]Whitefield, Harry Albert — Fullerton — LD 29+7 — 141 Encina-*1581*
Whiteley, Frank Adams — Warren, Arizona — Soc.S. 185+181 — Sig. Al. Eps.-*1305*
A.B., Stanford, 1931
[4]Whitelock, Dorothy Anna — San Francisco — LD ‡ — 161 Roble
[4]Whitfield, George McCabe — Tacoma, Wn. — Educ. gr. — Kingscote-*841*
A.B., College of Puget Sound, 1925; A.M., Stanford, 1930
Whitfield, Harold Arthur — Vancouver,Wn. — LD 45+4 — 202 Encina
Whitney, Girvin — Piedmont — LD 48+22 — 329 Encina-*1635*
Whitney, William Neville — Carmel — S.Engr. 89·41+1 — 680 College, P-p
Whittemore, Kelsey P. — San Diego — Pol.S. 90·47–4 — 204 Sequoia-*674*
Whittington, Roy Nichols — Orange Cove — LD 36–27 — 204 Encina-*2668*
[4]Whyte, Orma — Oakland — LD ‡ — 164 Roble
Wickersham, Lloyd B., Jr. — Norfolk, Va. — LD 46·46+60 — 406 Encina-*1943*
[24]Wicks, Arthur Forrest — Westport, Ore. — Educ. gr. — 1116 Bryant, P-p
B.B.A., Oregon, 1922
Widmann, Homer — Los Angeles — Engl. gr. — 804 Bryant, P-p
A.B., California at Los Angeles, 1926
[4]Widmann, Rudolph Robert — SanFrancisco — LD — 526 Virginia, SM-sm
[4]Widmann, Walter — San Francisco — LD — 1875 Pacific, SF-sf
[13]Wiel, Elizabeth Joan — Menlo Park — LD 25–12 — Menlo Pk-Box 193, mp
Wieser, Henry Emil — Burlingame — S.Biol. gr. — 817 Paloma, B-b
A.B., Stanford, 1931
[4]Wiest, Elizabeth C. — Boulder, Colo. — Engl. gr. — 431 Channing, P
A.B., Colorado, 1926, A.M., 1927
Wiget, Ted M. — Walnut Creek — LD 53+24 — Encina
Wight, Otis Martin — Portland, Ore. — Econ. 180+48 — Zeta Psi-*B*
A.B., Stanford, 1931
[5]Wight, Vernon J. — Palo Alto — Chem. 109+0 — 404 Sequoia-*2532*
Wihr, Norman Lester — San Francisco — Zoöl. gr. — 1976 21st Ave., SF-sf
A.B., California, 1928; A.M., Stanford, 1931
Wilbur, Leonard Fiske — San Francisco — Med. gr. — 1369 Hyde, SF-sf
A.B., Stanford, 1928
Wilbur, Ray Lyman, Jr. — Washington,D.C. — LD 90+62 — 227 Toyon-*70*
[4]Wilcox, Ada May — Lemoore — Educ. gr. — 117 Roble-*975*
A.B., Nebraska Wesleyan, 1917
[5]Wilcox, Leland Ford — Kimball, Neb. — Engl. gr. — 762 Dolores
A.B., Stanford, 1930
Wilcoxon, Benton Hartung — Alta — LD 65+78 — 136 Encina
Wildman, Mary Frances — Stanford Univ. — Fr. gr. — 668 Cabrillo
A.B., Stanford, 1922, A.M., 1927
[7]Wilhelm, Keith Axtell — Golden, Colo. — LD 57–14 — 305 Lytton, P-p
Wilkins, Fred Ellis — Sacramento — Econ. 90·90–10 — 431 Encina-*2563*
Wilkinson, Wilbur Ringo — Los Angeles — Econ. 134+21 — Delta Upsilon
Will, Otto Allen — Colorado Springs, Colo. — LD 75+139 — 141 Toyon-*1816*
Willard, Don Gaylord — Tacoma, Wash. — Chem. 129+95 — Phi Sigma Kap.-*538*
[23]Willard, James Allan — Los Angeles — S.Engr. 60+7 — 719 Middlefield, P-p
Willard, William Raymond — Omaha, Neb. — LD 73+21 — Phi Gamma Delta
Williams, Ansel Smith — Stockton — Law gr. — 509 Encina-*2403*
A.B., Stanford, 1930
[4]Williams, Burdick F. — Piedmont — LD ‡ — 226 Toyon
Williams, Charles Lovell — San Diego — Soc.S. 90·47–3 — 405 Sequoia-*664*
[3]Williams, Conger — Milwaukee, Wis. — LD 94+24 — Kappa Sigma-*1326*

| | | | |
|---|---|---|---|
| Williams, D. Harvey, Jr. | San Francisco | S.Engr. 5·166+21 | Theta Chi-*1383* |
| Williams, Dorothy Josephine<br>A.B., Stanford, 1931 | Santa Cruz | Pol.S. 58·141+34 | Al. Om. Pi-*1367* |
| Williams, Edwin Everitt | Blythe | S.Let. 123+133 | 304 Sequoia-*1564* |
| [5]Williams, Eleanor Dearman | SanFrancisco | Fr. 94+136 | Delta Gamma-*1366* |
| [23]Williams, Griffith Evan | The Dalles, Ore. | Pre-Med. 165+78 | Sigma Nu-*1385* |
| Williams, Harry A.<br>A.B., Stanford, 1925 | Berkeley | C.E. gr. | 115D Alma, P-p |
| Williams, John Whelan<br>A.B., San Jose State Teachers College, 1930 | Cupertino | Chem. gr. | Cupertino-c |
| Williams, Kenneth Burdg | Fullerton | Econ. 97·50+62 | 333 Waverley, P-p |
| Williams, Marian Yale | Stockton | LD 44+66 | 339 Roble-*2403* |
| [5]Williams, Philip Daniel<br>A.B., Stanford, 1930 | Tulare City | Phys. gr. | 475 Forest, P-*1436* |
| Williams, Philip P. | Washington, D.C. | LD 44+51 | 349 Encina-*1714* |
| [3]Williams, Roger Alling | The Dalles, Ore. | Econ. 93–35 | Sigma Nu-*1385* |
| [1]Williams, Ruth Ellen<br>A.B., San Jose State Teachers College, 1929 | San Jose | Engl. gr. | 824 S. 9th, SJ-sj |
| Williams, Samuel | Santa Barbara | Hist. 98·38–6 | 694 Alvarado-*2308* |
| [12]Williams, Sidney Weaver<br>A.B., Stanford, 1931 | San Francisco | Hist. 185+173 | Alpha Phi-*1387* |
| †[12]Williams, Thomas Burton | Los Angeles | Geol. 155+6 | 313 Toyon |
| [12]Williamson, Alfred James<br>A.B., Stanford, 1931 | Ontario | Soc.S. 127·53+49 | 326 Union-*90* |
| Williamson, Olga | Flint, Mich. | Psych. 93·78+96 | 201 Roble-*721* |
| [12]Willis, Margaret<br>A.B., Stanford, 1931 | Stanford Univ. | Phil. 180+27 | 539 Lasuen-*1365* |
| [4]Williston, Preston Eugene<br>A.B., Fresno State College, 1927 | Fresno | Phys.Ed.gr. | 555Hvrd,P-(Sta.A)p |
| Willson, James David | Pearl Harbor, T.H. | LD 45–5 | 224 Encina |
| [1]Wilmar, Fred | Berkeley | LD 95+29 | Phi Gamma Delta |
| §[1]Wilsey, Dane Maxfield<br>A.B., Stanford, 1930 | Madison, N.J. | Pre-Med. gr. | 135 Harriet, P-p |
| Wilson, Carl Robert<br>A.B., Stanford, 1931 | Palo Alto | Econ. 180+6 | 435 Tasso, P-p |
| [12]Wilson, Donald Howard | San Diego | Pol.S. 43·73+76 | Phi Delta Theta |
| Wilson, Edward W. | Stanford Univ. | Pre-Clin. 185+57 | 113 Toyon-*717* |
| [1]Wilson, Elwood Jasper<br>A.B., Stanford, 1930 | Stanford Univ. | Law gr. | 145 Toyon-*717* |
| [1]Wilson, Emerson J.<br>A.B., Nevada, 1928 | Reno, Nev. | Law gr. | 736 Harvard, MP-*921* |
| Wilson, Emmet Homer, Jr. | Los Angeles | LD 91+80 | Sigma Nu-*2695* |
| Wilson, George Zimmerman | Petaluma | LD 58–10 | 404 Encina-*2707* |
| [13]Wilson, Jack Leroy<br>A.B., Stanford, 1931 | Santa Monica | Econ.-Ac.183+239 | 219Toyon-*1533* |
| Wilson, Jesse Harris | Santa Cruz | Econ. 160–6 | Theta Delta Chi-*1828* |
| [23]Wilson, Josephine Marion | Burlingame | LD 74+21 | 117 Roble-*1882* |
| Wilson, Kenneth George<br>A.B., Stanford, 1931 | Pasadena | Econ.-Ac.90·93+106 | 561Enc.-*2641* |
| Wilson, Lloyd Kenneth | Newcastle | Geol. 90·69+15 | 1425 Alma, P-p |
| Wilson, Pauline | Cupertino | Soc.S. 138+67 | Kap.Kap.Gamma |
| Wilson, Philip Louis | Los Angeles | Econ. 125+66 | Zeta Psi-*B* |
| Wilson, Phyllis Marie | Boise, Idaho | LD 49+39 | 322 Roble-*1695* |

† Deceased, February 2, 1931.

§ Deceased, December 16, 1930.

Wilson, Thomas Strong — Portland, Ore. — Law gr. — 556 Encina-*1433*
A.B., Princeton, 1927; LL.B., Stanford, 1931

[12]Wilson, Virginia Mildred — Santa Cruz — Engl. 88·27+29 — 272 Roble-*2583*

Wilson, William Wayne — Pasadena — Econ. 87·45+54 — 436 Encina-*2764*

Wineberg, William Alvin — Evanston, Ill. — LD 92+21 — 134 Branner-*2422*

Winebrenner, Dolph — Long Beach — Soc.S. 90·49+9 — 423 Encina

[12]Winger, Raymond Ralph — Whittier — S.Engr. 102·98+27 — Chi Psi-*1648*
A.B., Stanford, 1931

[3]Winkler, David P. — Beverly Hills — Engl. 90·59+37 — Chi Psi-*1648*

Winnek, Phil Stanley — San Diego — Chem. 193+258 — Sigma Nu-*1385*
A.B., Stanford, 1931

[1]Winquist, Carl S. — Chicago, Ill. — S.Engr. 38·142+15 — 218 Toyon-*2757*
A.B., Stanford, 1931

Winship, Elinor Estelle — Freeport, N.Y. — Engl. 96·87+119 — 369 Roble-*2724*
A.B., Stanford, 1931

[4]Winter, Anna Rose — Laramie, Wyo. — Fr. gr. — 267 Roble-*1282*
A.B., Wellesley, 1915

[4]Winter, Audrey — Los Angeles — Soc.S.-Jn.‡ — 305 Roble

[4]Winter, Fred Aldrich — Cedar Rapids, Ia. — Phys.Ed. gr. — 535 Tasso, P-p
A.B., Grinnell, 1921

Winter, Margaret Florence — Pasadena — LD 45+49 — 105 Roble-*1754*

[2]Winterburn, John Charles — Palo Alto — Educ. gr. — 217 Madroño, P-*991*
B.S., Pittsburgh, 1923

[4]Wintermeyer, Harry — City Island, N.Y. — Econ. gr. — 312 Union-*1461*
B.S., George Peabody College for Teachers, 1931

Winther, Oscar Osburn — Stanford Univ. — Hist. gr. — 327 Union-*2025*
A.B., Oregon, 1925; A.M., Harvard, 1928

Winther, Reidar — Oslo, Norway — Pol.S. 139+149 — Al. Sig. Phi-*1357*

[1]Winton, Harry N.M. — San Francisco — Hist. 141+186 — 215 Branner-*1204*

Wiper, Robert Wohlwend — Bowbells, N.D. — Econ. 181+47 — 217 Toyon-*2488*
A.B., Stanford, 1931

Wirt, Sheldon Kessinger — Long Beach — Med. gr. — 2321 Sacramento, SF-sf
A.B., Stanford, 1928, A.M., 1929

Wist, Edward Burton — Alameda — S.Engr. 166+103 — 210 Branner-*1661*

[4]Witherbee, Orville Orvus — Los Angeles — Zoöl. 56·132+51 — Pacific Grove-pg

[4]Witherspoon, Gertrude — Upper Lake — Educ. gr. — 626 Homer, P-p
A.B., San Jose State Teachers College, 1929

[1]Witt, Shirley Mae — Porterville — Zoöl. gr. — 162 Melville, P-p
A.B., Fresno State College, 1930; A.M., Stanford, 1931

Witte, Erwin F. H. — Redwood City — Econ. 103+96 — 266 Hopkins, RC-rc

[12]Wittenau, Carl — Warren, Ariz. — Econ. 165+76 — Kappa Sigma-*1326*

Wittenberg, Mary Edna — Terre Haute, Ind. — Pol.S. gr. — 281 Roble-*2604*
A.B., Stanford, 1929, A.M., 1930

Wolcott, Alice Elizabeth — Burlingame — Psych. 22·137+78 — 300 Roble-*1227*

[12]Wolf, Joseph Julius — San Francisco — LD 80+46 — Kingscote

Wolfe, Cameron — Berkeley — Pol.S. 182+275 — Zeta Psi-*B*
A.B., Stanford, 1931

[4]Wolhaupter, Hazel Louisa — San Mateo — Engl. gr. — 120 Tilton, SM-sm
A.B., California, 1919

[13]Womack, Ellis Stanley — Oakland — Econ. 166+49 — Kappa Alpha

Wong, Alfred K. — Shanghai, China — Med. gr. — 2480 Washington, SF-sf
A.B., Stanford, 1927

[12]Wong, Henry — Oakland — Econ. gr. — Chinese Club-*1175*
A.B., College of the Pacific, 1928

[12]Wong, Kenneth Tsz Paan — Canton, China — Pol.S. 90·90+11 — Chinese Club-*816*
A.B., Stanford, 1931

[12]Wong, Ming Yan — Canton, China — S.Engr. 129–21 — Chinese Club-*809*

Wood, George Archie — San Francisco — Med. gr. — 2758 Pierce, SF-sf
A.B., Stanford, 1930
[12]Wood, Gerald Haworth — Palo Alto — Hist. gr. — 1550 Webster, P-p
A.B., Friends, 1925
Wood, Lewis Jeremiah — Hollywood — Econ. 133+58 — Phi Kappa Psi
[4]Wood, Maurice R. — San Jose — Educ. gr. — 128 S. 20th, SJ-sj
A.B., College of the Pacific, 1927
[5]Wood, William Almon, Jr. — Oakland — LD 76+66 — Phi Kappa Psi
[3]Wood, Willsie Winston — Oakland — Econ. 135·9+9 — Regillus Apts., O-o
Woodard, Bernice — Palo Alto — Pol.S. 92·46+81 — Staller Apts., P-p
Woodbury, Rollin Edwin — Hollywood — LD 45+68 — 207 Encina-*2142*
Woodhouse, Edwin Deshler — Palo Alto — Bot. gr. — 570 Amherst, P-*1210*
B.S., Oklahoma, 1919; A.M., Stanford, 1929
Woods, Wallace Kelly — Kansas City, Mo. — LD 49+50 — 111 Encina-*636*
Woods, Ward Wilson — Oakland — Psych. 141+177 — Delta Upsilon
Woodward, Albert Fletcher — Whittier — LD 35+26 — 244 Encina-*902*
Woodworth, Denny — San Francisco — Econ. 15·131+64 — 210 Sequoia
Woodworth, Edwin Balla — Los Altos — LD 91+35 — Los Altos-Box 75, la
Woodworth, Horace Towne — Lodi — Hist. 48·90+89 — DeltaKappaEpsilon
Woodyatt, Daniel Burnham — Palo Alto — S.Engr. 180+22 — 1425Stnfd,P-*1128*
A.B., Stanford, 1931
Woolf, Loren Ambrose — Red Bluff — LD 95+48 — Alpha Kappa Lam.-*658*
Wooliever, Francis Joseph — San Francisco — LD 89+11 — 228 Branner-*2059*
Woolley, Cecil Talbot — Byron — Econ. 90·49+2 — 1263 Stanford, P-p
Woolsey, Elwood Larkins — Berkeley — Med. gr. — 531 Hanover, P-*20*
A.B., Stanford, 1930
Woon, Winona Sara — Gilroy — LD 48+37 — 146 Roble-*2374*
[4]Wooster, Earl — Winnemucca, Nev. — Educ. gr. — 560 Forest, P-p
A.B., Nevada, 1921
[5]Wootan, John Thomas, Jr. — San Gabriel — S.Eng.157+23 — 463Hvd,P-(Sta.A)p
Wooton, Flaud Conaroe — Palo Alto — Educ. gr. 1648 — Calif., P-(Sta.A) p
B.S., Oregon, 1926, A.M., 1927
Word, Robert Lee, Jr. — Helena, Mont. — Law gr. — 181 Lytton, P-p
A.B., Dartmouth, 1928
Work, Jordan Marlow — Ottumwa, Iowa — Econ. 94·48+14 — 418 Encina-*1034*
Worley, George Francis — San Francisco — LD 46+3 — 353 Encina-*1697*
[1]Wormser, Robert — Santa Barbara — Educ. gr. — Stanford Inn, P-p
A.B., Harvard, 1922
[2]Worsley, Wallace, Jr. — Los Angeles — LD 103–15 — Theta Xi
[12]Worth, Ernest Elmer — Palo Alto — Econ. 126·24–18 — 1024 Ramona,P-p
[4]Wreden, William Paul — San Francisco — LD ‡ — 226 Toyon
[1]Wren, Robert Montagu — Auburn — Pol.S.16·166+178 — 214Sequoia-*2215*
A.B., Stanford, 1931
Wrenn, Charles Gilbert — Palo Alto — Educ. gr. 1641 — Calif., P-(Sta.A) p
A.B., Willamette, 1926; A.M., Stanford, 1929
Wright, Alvah Bruce — Globe, Ariz. — Pol.S. 136+243 — 207 Sequoia-*1883*
Wright, Bernice M. — Pasadena — Soc.S. 87·73+101 — Pi Beta Phi-*1918*
Wright, Chester Clay — Rupert, Idaho — S.Biol. gr. — 222Fulton,P-Box138,p
B.S., Idaho, 1923
Wright, Editha Florence — San Francisco — Med. gr. — 2700 Lyon, SF-sf
A.B., Stanford, 1929
Wright, Frederick F. — San Francisco — LD 45+22 — 226 Encina-*42*
[5]Wright, Norman Scott, Jr. — Mill Valley — LD 40–10 — 330 Encina-*2125*
Wright, Richard Ewing — San Luis Obispo — Chem. 191+265 — 248 Toyon-*1764*
A.B., Stanford, 1931
Wright, Whitney Jones — San Jose — Econ. 5·178+114 — Theta Chi-*1383*
A.B., Stanford, 1931

[5]Wu, Chi Yi — China — Pol.S. gr. — 391 College, P-*2722*
A.B., Stanford, 1931
Wulzen, Richard Henry — San Francisco — Chem. 136+81 — Delta T. Delta-*1363*
[12]Wyatt, Dorothea Edith — San Francisco — Hist. gr. — 373 Roble-*977*
A.B., Stanford, 1930, A.M., 1931
Wyatt, Francis D. — Redwood City — Pol.S. gr. — 118 Brewster, RC-rc
A.B., Stanford, 1931
[5]Wyckoff, James Allen — Watsonville — Law ‡ 106+49 — 2183 Bryant, P-p
[4]Wyman, Ada Fay — Palo Alto — Soc.S. gr. — 711 Middlefield, P-p
A.B., California, 1925; A.M., Stanford, 1930
Wyman, Elliott Sherwood — Glendale — Econ. 46·80+0 — 409 Encina
[1]Wynn, Carol Glenn — Pasadena — Law gr. — Phi Delta Theta
A.B., Stanford, 1928, LL.B., 1931
[1]Yamautsuri, Sadaakira — Tokyo, Japan — Pol.S.135·35–17 — JapaneseClub-*598*
Yarnell, George Alfred — Palo Alto — S.Engr. 5·189+27 — 567 Lincoln, P-p
A.B., Stanford, 1931
Yates, Silas Burnham — Lincoln, Neb. — LD 57·45+47 — Phi Kappa Psi
[2]Yeatman, Robert Mack — Los Angeles — Phys. gr. — 1202 Byron, P
A.B., Stanford, 1927
[1]Yeazell, Edward Campbell — Sausalito — Econ. 101+0 — Alpha T. Omega-*1384*
[12]Yee, Samuel Edwin — Marysville — S.Engr. 90·28–18 — 163 Park, P-*1094*
Yeomans, Helen Eva — Spokane, Wash. — Cl.Lit. gr. — 24 Kingscote-*33*
A.B., Stanford, 1930, A.M., 1931
Yoshitsu, Masao — Elk Grove — Econ. 90·49+36 — Japanese Club-*598*
[4]Yost, Paul Kirkwood, Jr. — Los Angeles — LD — Toyon
[23]Young, Alexander Macnider — Alameda — LD 68+13 — 257 Toyon-*963*
[12]Young, Barbara — Stanford Univ. — Hist. 69·112+165 — Alpha Phi-*1387*
A.B., Stanford, 1931
Young, Barbara Jane — Portland, Ore. — LD 45+77 — 251 Roble-*1846*
Young, Frank Wheadon — Oregon City,Ore. — Econ. 51·129+24 — 203 Union-*2332*
A.B., Stanford, 1931
Young, Graham Temple — Glendale — Econ. 180+88 — Delta Upsilon
A.B., Stanford, 1931
[5]Young, Hobart Nading — Berkeley — Soc.S.-Soc. gr. — 316 Union-*46*
A.B., California, 1926; A.M., Stanford, 1931
[23]Young, John Kiger — San Diego — Bact. 79·160+143 — Del. T. Del.-*1363*
A.B., Stanford, 1931
Young, John Paul — Hughson — Pre-Clin.135·56+38 — 1106Rmna,P-p
A.B., Stanford, 1931
Young, Lucy — Stanford Univ. — LD 38+42 — 562 Gerona
[5]Young, Min-Chi — Shensi, China — Psych. 90·87+45 — 637 Stanford, P-p
Young, Thomas Wesley — Etna — LD 37–2 — 109 Encina-*1731*
[4]Younkin, Fay L. — Palo Alto — Math. gr. — 629 Emerson, P-p
A.B., Tempe Teachers College, 1929
Zaches, Paul Edward — Monterey — Pol.S. 90·26–20 — 240 Branner-*2313*
Zaches, Russell Henry — Monterey — Econ. 151+60 — 115 Branner-*2773*
[23]Zacker, Paul Gerhart — Lodi — S.Bus. gr. — 305 Lytton, P-p
B.S., California, 1930
[4]Zannon, Fred Arlington — Roseville — Educ. gr. — 209 Toyon-*2432*
A.B., Chico State Teachers College, 1930
Zelhart, William Wesley — Selma — S.Bus. gr. — 551 Lytton, P-p
A.B., Fresno State Teachers College, 1930
Ziegler, James Edwin, Jr. — San Francisco — Pre-Med.153+94 — 228Branner-*2512*
Zielbauer, Edward Joseph — Los Angeles — Geol. 132·48+19 — 228 Branner-*1141*
A.B., Stanford, 1931
[5]Zimansky, Curt Arno — San Francisco — LD 49+37 — 138 Encina-*1582*
[3]Zimmerli, Katherine J. — Pittsburgh, Pa. — Engl. 135·51+13 — 151 Cowper, P-p
A.B., Stanford, 1931

Zimmerman, Arden David San Jose S.Eng.135-88+118 146N.16th,SJ-sj
A.B., Stanford, 1931
Zipf, Albert Fairfield San Francisco Pre-Med. 131+169 Sigma Nu-*1385*
Zitkowski, Dorothy Verges Denver,Colo. Ed.-G.A. 180+277 Kap.AlphaThe.
A.B., Stanford, 1931
Zoet, August Gerrard Lynden, Wash Bact. gr. 330 Union
B.S., Washington, 1930, M.S., 1930
[12]Zoffman, George Emmet San Francisco LD 71–22 Alpha Sigma Phi-*1357*
[4]Zolman, Pauline Naoma Long Beach Educ. gr. 520 Cowper, P-p
A.B., Mills, 1926
Zombro, Frederick Bicknell Los Angeles Med. gr. 2321 Sacramento, SF-sf
A.B., Stanford, 1929
[28]Zschokke, Theodore O. Palo Alto Zoöl. 157+94 208 Escobita, P-p
Zuger,ArthurFrederick Waitsburg,Wash. Econ. 90-90+0 Theta Chi-*1383*
A.B., Stanford, 1931
[5]Zumwalt, Fred H. San Francisco Pol.S. 94+2 1230 Emerson, P-*1452*

# SUMMARIES

## OFFICERS

| | | |
|---|---|---|
| Trustees | | 15 |
| Academic Council—rank of | | |
| Professor | 170 | |
| Associate Professor | 74 | |
| Assistant Professor | 27 | |
| Total (less 9 absent on leave) | | 262 |
| Other Teaching and Administrative Officers—rank of | | |
| Emeritus Professor | 35 | |
| Clinical Professor | 10 | |
| Associate Clinical Professor | 22 | |
| Assistant Professor | 38 | |
| Assistant Clinical Professor | 19 | |
| Lecturer | 34 | |
| Instructor | 89 | |
| Clinical Instructor | 48 | |
| Associate | 16 | |
| Administrative Officer | 82 | |
| Total (less 6 absent on leave) | | 387 |

Assistants

| | At Stanford | At San Francisco | |
|---|---|---|---|
| Instruction | 88 | 64 | 152 |
| Research | 48 | 6 | 54 |
| Technical | 67 | .. | 67 |
| Administration | 100 | 23 | 123 |
| Library | 33 | 3 | 36 |
| Total | | | 432 |
| Grand Total | | | 1096 |

## STUDENTS

| | Autumn | Winter | Spring | Summer | For the year |
|---|---|---|---|---|---|
| Graduates | 893 | 885 | 853 | 670 | 1543 |
| Undergraduates | 2706 | 2612 | 2428 | 461 | 3030 |
| Special Students | 7 | 6 | 3 | 4 | 8 |
| Total | 3606 | 3503 | 3284 | 1135 | 4581 |

## BY MAJOR SUBJECTS

| | Graduate | Undergraduate | Total |
|---|---|---|---|
| Biological Sciences, School of | 18 | 26 | 44 |
| Anatomy | 3 | — | 3 |
| Bacteriology | 12 | 21 | 33 |
| Botany | 7 | 1 | 8 |
| Physiology | 8 | 9 | 17 |
| Pre-Medical | 9 | 78 | 87 |
| Zoölogy | 39 | 21 | 60 |
| Business, Graduate School of | 71 | — | 71 |
| Education, School of | — | — | — |
| Education | 394 | 27 | 421 |
| Graphic Art | 10 | 16 | 26 |
| Engineering, School of | — | 261 | 261 |
| Civil | 15 | 2 | 17 |
| Electrical | 29 | — | 29 |
| Mechanical | 29 | — | 29 |
| Military Science | — | 3 | 3 |
| Mining | 22 | — | 22 |
| Food Research | 2 | — | 2 |
| Hygiene and Physical Education, School of | 12 | — | 12 |
| Law, School of | 224 | 2 | 226 |
| Letters, School of | — | 2 | 2 |
| Classical Literature | 13 | 8 | 21 |
| English | 72 | 70 | 142 |
| Public Speaking | 9 | 26 | 35 |
| Germanic Languages | 17 | 8 | 25 |
| Romanic Languages | — | — | — |
| French | 18 | 15 | 33 |
| Spanish | 20 | 17 | 37 |
| Slavic Languages | — | 1 | 1 |
| Lower Division (including 8 special students) | — | 1198 | 1198 |
| Medicine, School of | 154 | — | 154 |
| Pharmacology | 1 | — | 1 |
| Pre-Clinical | — | 37 | 37 |
| Physical Sciences, School of | 1 | 3 | 4 |
| Chemistry | 63 | 61 | 124 |
| Geology | 27 | 40 | 67 |
| Mathematics | 29 | 19 | 48 |
| Physics | 17 | 13 | 30 |
| Social Sciences, School of | 5 | 111 | 116 |
| Economics | 34 | 546 | 580 |
| Accountancy | 2 | 31 | 33 |
| Sociology | 6 | 2 | 8 |
| History | 53 | 109 | 162 |
| Journalism | 6 | 47 | 53 |
| Philosophy | 6 | 16 | 22 |
| Political Science | 53 | 153 | 206 |
| Psychology | 30 | 37 | 67 |
| Sociology | 2 | 1 | 3 |
| No major department | 1 | — | 1 |

## BY RESIDENCE

| | | | | | |
|---|---|---|---|---|---|
| California | 3370 | Massachusetts | 10 | Canada | 17 |
| Oregon | 139 | Indiana | 9 | Philippine Islands | 11 |
| Washington | 135 | New Jersey | 7 | Japan | 10 |
| Arizona | 86 | North Dakota | 7 | Alaska | 6 |
| Colorado | 54 | South Dakota | 7 | England | 4 |
| Idaho | 50 | Tennessee | 6 | Brazil | 2 |
| Utah | 49 | Alabama | 4 | Central America | 2 |
| Illinois | 44 | Connecticut | 4 | Chile | 2 |
| Michigan | 44 | Louisiana | 4 | Germany | 2 |
| Montana | 39 | Virginia | 4 | Holland | 2 |
| New York | 39 | Florida | 3 | Peru | 2 |
| Texas | 35 | Arkansas | 2 | Austria | 1 |
| Missouri | 27 | Kentucky | 2 | Bavaria | 1 |
| Nevada | 27 | Maine | 2 | Belgium | 1 |
| Ohio | 26 | Maryland | 2 | Bolivia | 1 |
| Oklahoma | 25 | North Carolina | 2 | France | 1 |
| Iowa | 24 | Georgia | 1 | Greenland | 1 |
| New Mexico | 24 | New Hampshire | 1 | Ireland | 1 |
| Kansas | 23 | Rhode Island | 1 | Italy | 1 |
| Nebraska | 22 | South Carolina | 1 | Liberia | 1 |
| Pennsylvania | 20 | West Virginia | 1 | Mexico | 1 |
| Minnesota | 18 | | | Norway | 1 |
| Wisconsin | 12 | China | 48 | Porto Rico | 1 |
| Wyoming | 12 | Hawaii | 26 | Spain | 1 |
| Washington, D.C. | 10 | | | | |

# STANFORD ALUMNI ASSOCIATION

## CONSTITUTION

Adopted April 18, 1931

Effective September 1, 1931

### ARTICLE I. NAME

The name of this organization shall be THE STANFORD ALUMNI ASSOCIATION.

### ARTICLE II. PURPOSE

The purpose of the Association shall be to promote the interest of Stanford University and the establishment of a mutually beneficial relationship between the University and its alumni.

### ARTICLE III. MEMBERSHIP

SECTION 1. All persons who have matriculated at Stanford University, and all persons who have been awarded degrees or diplomas from affiliated institutions or from institutions which have been merged with Stanford University, are eligible for membership in this Association and may become members upon the payment of regular dues provided, however, that only members who have received a degree from Stanford University, or who have been in residence at the University for a period equivalent to at least six quarters and who have withdrawn in good standing, shall be eligible to any elective office in this Association.

SEC. 2. All members of the Faculty, or Emeritus Members of the Faculty, are honorary members of this Association.

### ARTICLE IV. OFFICERS

SECTION 1. The powers, business, and property of this Association shall be exercised, conducted, and controlled by a board to be known as the Alumni Council, consisting of fifteen members elected as hereinafter provided for terms of three years each, and the Executive Secretary, who shall be a member ex-officio; provided, however, that all elected members of the Executive Committee as constituted under the Constitution adopted June 21, 1924, shall continue in office as members of the Alumni Council until their terms of office expire. At the election of the Association to be held in the spring of 1932, six members of the Council shall be elected, four for full three-year terms, one to hold office for two years, and one for one year. At each succeeding annual election of the Association, four members shall be elected for full three-year terms to succeed members whose terms will expire at the close of the then current official year of the Association. Each graduating class of the University, beginning with the class of 1932, shall elect a member of the Council to serve for a three-year term. During the official year 1932–33, the Council will consist of fourteen members, the fol-

lowing year of fifteen members, and during the next year and all years thereafter of the full sixteen members herein provided for. At least four members of the Council shall be graduates or eligible ex-students of not less than ten years' standing. Annual elections shall be held in the spring of each year in such manner as the By-Laws shall provide.

SEC. 2. The Alumni Council shall at its first meeting in each year elect from its membership a President, a First Vice-President, a Second Vice-President, and from the membership at large an Executive Secretary. Such officers shall serve for the term of one year, or until their successors have been elected.

### ARTICLE V. OFFICIAL YEAR OF THE ASSOCIATION

The official year of the Association, which shall govern the terms of officers and the fiscal affairs of the Association, shall commence on September first and end on August thirty-first of the succeeding calendar year.

### ARTICLE VI. BY-LAWS

The Alumni Council shall have authority to adopt By-Laws for the purpose of carrying out the provisions of the Constitution and shall also have the power, by a vote of two-thirds of the members present at a meeting called for the purpose, to amend the By-Laws in such manner as may be deemed necessary; provided, however, that the By-Laws appended to this Constitution shall go into effect contemporaneously therewith, and shall remain in force thereafter, subject to the future exercise of authority conferred upon the Council under this Article.

### ARTICLE VII. CHANGES IN CONSTITUTION

This Constitution may be amended by a two-thirds vote at any meeting of the Association, provided the proposal to amend shall have been filed in writing with the Executive Secretary, and thirty days' written notice of such amendment, and of the date of meeting of the Association at which it is to be considered, shall have been given to the members.

## BY-LAWS

### ARTICLE I. DUTIES OF OFFICERS

SECTION 1. It shall be the duty of the President to preside at all business meetings of the Association and of the Alumni Council; to submit for the Council an annual report of the affairs of the Association; and to perform such other duties as usually belong to this office. The President shall be ex-officio member of all committees.

SEC. 2. It shall be the duty of the First Vice-President to preside in the absence of the President, and to perform all other duties appropriate to his office. It shall be the duty of the Second Vice-President to preside in the absence of the President and of the First Vice-President, and to perform all other duties appropriate to his office.

SEC. 3. The Executive Secretary shall keep the minutes of all meetings of the Association and of the Alumni Council; shall have the custody of all the books and papers; shall collect the fees and dues of members, and all

monies due or coming to the Association, and shall pay the same over to the bank or depository of the Association. He shall disburse the funds of the Association under the direction of the Alumni Council. He shall keep the records and conduct the general correspondence of the Association, and make such reports to the Alumni Council as may be requested. He shall be ex-officio member of all committees.

SEC. 4. It shall be the duty of the Alumni Council (1) to regulate the finances of the Association; (2) to fix the salary of the Executive Secretary; (3) to direct the publication of the alumni magazine, employing the editorial staff and supervising the general policy of the publication; (4) to have the accounts of the Association audited at least once each year and report the audit to the Association; (5) to fill, for the unexpired term, all vacancies occurring by death, resignation, or otherwise; (6) to arrange for the program presented on any public occasion for or by the Association; (7) to attend to all the business of the Association not otherwise provided for in the Constitution; (8) to consult the alumni, undergraduates, faculty, and trustees when it deems it advisable in order to make recommendations regarding the welfare of the University and of the Alumni Association.

## ARTICLE II. NOMINATIONS AND ELECTIONS

SECTION 1. The January issue of the alumni publication shall give notice of the annual nomination and election of officers of this Association. Said notice shall contain the names of the incumbent officers, and shall indicate the hold-over members of the Alumni Council, and shall contain in full the provisions of these By-Laws relating to nominations and elections.

SEC. 2. The Alumni Council shall each year appoint a nominating committee of five, two to be selected from among the members of the Council, and three from among the presidents of regularly organized Stanford Alumni Clubs. The nominating committee shall make its report to the Alumni Council each year by the fifteenth day of February.

SEC. 3. Nominations may be made also by petition. A nominating petition must be signed by at least fifty members of the Association and must be filed in the office of the Executive Secretary on or before the first day of March of the year for which the nomination is made, and shall be valid only if the consent to such petition is endorsed thereon by the person in whose behalf such petition is filed.

SEC. 4. On or before the first day of April each year, the Executive Secretary shall mail to every member of this Association whose dues for the current year have been paid an official ballot containing all the nominations, with the addresses of the nominees, and the number of proposers of those nominated by petition, and said ballot shall be published in the April issue of the alumni publication.

SEC. 5. Officers shall be elected at an annual election to be held at Stanford University on University Day, between the hours of 9 o'clock A.M. and 12 o'clock noon. The Alumni Council shall have charge of the election. The elector may cast a written ballot in person, or by letter, mailed to the Executive Secretary, marked "Ballot" and disclosing the sender's name, and enclosing a ballot in a plain envelope. Ballots so received shall be opened and cast only during the hours of election. The respective candidates receiving the highest number of votes shall be declared elected. A tie vote shall be decided by lot.

SEC. 6. If there are no nominees other than those of the nominating committee and no contest for any office occurs, the provisions of Sections 4 and 5 of this Article shall not apply, but the Executive Secretary shall be authorized to cast the ballot for such nominees at the annual meeting of the Association on University Day.

SEC. 7. No one whose annual dues are in arrears for the current year shall be entitled to vote or to hold office.

## ARTICLE III. DUES

SECTION 1. The dues of the Association shall be $3.00 per year for each member thereof, which amount shall include a subscription to the monthly alumni publication, provided, however, that for a second member of a family living in a house in which there is already one full membership the dues, not including a subscription to the monthly publication, shall be $1.50 per year.

SEC. 2. A member upon payment into the treasury of the sum of fifty dollars ($50.00) shall be entitled to a life membership in this Association, including a life subscription to the monthly alumni publication, and shall not be liable for any further dues, provided, however, that for a second member of a family living in a house in which there is already one full life membership the life membership dues, not including a life subscription to the monthly alumni publication, shall be $25.00.

SEC. 3. All members who, prior to May, 1908, have paid $5.00 shall, if they desire, be exempt from further dues.

## ARTICLE IV. FUNDS

SECTION 1. The receipts from dues and from miscellaneous sources, and the interest from life memberships, shall be known as the current fund and shall be used for the current expenses of the Association.

SEC. 2. At the end of each current year, or at prior time if so directed by the Alumni Council, all sums in the current fund in excess of $2,000.00 shall be transferred to the reserve fund. All sums thus transferred from the current fund to the reserve fund shall be deposited in trust with the Board of Trustees of Stanford University to be invested. The income earned by the reserve fund shall be withdrawn at the close of each year and deposited in the current fund.

SEC. 3. At such times and in such amounts as may be determined by the Alumni Council, with the advice and consent of the Board of Trustees of the University, withdrawals for purposes of Stanford University may be made from the reserve fund.

SEC. 4. The Alumni Council may accept donations of funds for the promotion of the purposes of the Alumni Association, and shall apply such donated funds according to the conditions specified by the donor. Such funds shall be deposited in trust with the Board of Trustees of Stanford University and may be withdrawn by the Alumni Council and expended only as specified in the trust created by the donor.

## ARTICLE V. MEETINGS

SECTION 1. Of the Association. The annual meeting shall be held on University Day of each year, and other meetings of the Association shall be held at such time as the Alumni Council shall determine. Notice of meet-

ings of the Association shall be mailed by the Executive Secretary to all members of the Alumni Council, and to all Alumni Clubs, at least thirty days prior to the time of holding the meeting. All meetings of the Alumni Association shall be held at Stanford University.

SEC. 2. Of the Alumni Council. The first meeting of the Alumni Council each year shall be held during the first week in September, the time and place of such meeting to be fixed by the Executive Secretary. Two days' notice in writing shall be given by him to each member. The Council shall meet at regular stated intervals thereafter, as shall be determined by the Council. Special meetings of the Council may be called at any time by the President, or by a majority of the Council, the place and purpose of the meeting to be designated in the notice of meeting.

### ARTICLE VI. QUORUM

A quorum shall consist, in the Association, of twenty-five members, and in the Alumni Council, of seven members.

### ARTICLE VII. ROBERTS RULES OF ORDER

*Robert's Rules of Order* shall govern in all cases not provided for by the foregoing By-Laws.

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PALO ALTO
STANFORD UNIVERSITY
AND VICINITY
SCALE 0 500 1000 1500 2000 2500 3000 FEET
0 1/2 MILE
1930
SEISMOLOGICAL STATION
PALO ALTO HIGH SCHOOL
STADIUM
PALO ALTO HOSPITAL
STANFORD CONVALESCENT HOME
STANFORD MAUSOLEUM
CACTUS GARDEN
FACULTY CLUB
TENNIS COURTS
VARSITY BASE BALL FIELD
BASE BALL
FOOT BALL
VARSITY TENNIS COURTS
R.O.T.C. BARRACKS
ENCINA HALL
TOLLHOUSE
BRANNER HALL
ART GALLERY
LIBRARY
MEMORIAL CHURCH
MUSEUM
MEMORIAL BUILDING
CHEMISTRY
GEOLOGY
PHYSICS
MINING
ENGINEERING
MECHANICS
MATERIALS
ELECTRICITY
MACHINE SHOP
POWER HOUSE
GYMNASIUM
SWIMMING POOL
CORPORATION YARD
CHEMISTRY RESIDENCE
SEQUOIA HALL
U.S. DEPT. OF AGRICULTURE EXPERIMENTAL ORCHARD
D.C. EXPERIMENTAL FARM
CARNEGIE INSTITUTION LABORATORIES
ROBLE HALL
SANTA TERESA
SAN FRANCISQUITO
GOVERNORS
AVENUE
LAGUNITA
SANDSTAND
RESIDENCE OF UNIVERSITY PRESIDENT
LATHROP RESIDENCE
GOLF COURSE
EL CAMINO REAL
ALMA STREET
HIGHWAY
UNIVERSITY AVENUE
MIDDLEFIELD ROAD
WEBSTER STREET
COWPER STREET
WAVERLEY STREET
BRYANT STREET
RAMONA
EMERSON STREET
HIGH STREET
LOUIS ROAD
GRAMMAR SCHOOL
METHODIST CHURCH
EPISCOPAL CHURCH
CONGR. CHURCH
BAPTIST CHURCH
ROMAN CHE. SCI. CHURCH
CHRISTIAN CHURCH
P.O.
LIBRARY
HOTEL
BANK
BUS STATION
S.P. STATION
COMMUNITY CENTER
FEDERAL TELEGRAPH
WEST COAST MILITARY ACADEMY
RINCONADA PARK
MUNICIPAL WATER WORKS
MUNICIPAL SEWAGE DISPOSAL PLANT
PUMPING PLANT
RYAN HIGH VOLTAGE LABORATORY
BOULEVARD
AVENUE
STREET
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